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VOLUME 8

IN THE SUPERIOR COURT,

State of California, County of Sacramento.

OCTOBER SESSION, 1881.

HON. JACKSON TEMPLE, - - - - - - Presiding Judge.

WINFIELD J. DAVIS, Official Reporter.

SAMUEL OSBOURNE and WILLIAM M. CUTTER, Reporters.

The People of the State of California,
vs.
The Gold Run Ditch and Mining Co.

COUNSEL:

For Plaintiff,

HON. A. L. HART, Attorney General, GEORGE CADWALADER, ISAAC S. BELCHER, A. L. RHODES, RICHARD BAYNE.

For Defendant,

J. K. BYRNE, W. C. BELCHER, S. M. WILSON, W. T. WALLACE, A. B. DIBBLE, A. P. CATLIN.

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In the Superior Court of the State of California in and for the County of Sacramento

The People of the State of California
vs.
The Gold Run Ditch and Mining Company

Morning Session
Tuesday
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Winfield J. Davis
Official Reporter

In the Superior Court of the State of California in and for the County of Sacramento

The People of the State of California vs. The Gold Run Ditch and Mining Company	Morning Session Tuesday Nov. 29th/81

Testimony of Joseph R. Wilkinson

Called for plaintiff, Sworn,

Mr. Hart — Where do you live?

A. In Sacramento.

Q. How long have you lived in Sacramento?

A. Since August 1865

Q. What is your occupation?

A. Civil Engineer.

Q. For whom are you now acting as Civil Engineer?

A. The Central Pacific Railroad Company.

Q. How long have you been acting as civil Engineer?

A. Since I have been in Sacramento. Since the first day of August 1865.

Q. In your capacity as civil Engineer for the Railroad company have you ever had occasion to make any examination of the American and Sacramento rivers near Sacramento?

A. I have.

Q. When first?

A. Well every winter since I have been here, I have had occasion to take observations in regard to the condition of the rivers.

Q. What are your particular duties as Engineer of the Railroad company?

A. I have had, up to a year and a half ago, charge of all the Railroad bed and tracks and all their work in this vicinity — outside work.

Q. Do those road-beds that you have had charge of cross these two rivers?

A. Yes.

Q. Where?

2331

A- It crosses the Sacramento near the Pioneer mills and the Central Pacific crosses the American river near the ~~Pioneer mills~~ Tivola Gardens.

Q- How far up the American?

A- I think about three miles and a half or four miles.

Q- What was the condition of the river-bed when you first knew it in 1865 say, the American river bed?

A- Well there was a great deal of deposite in the bed of the river at that time.

Q- What kind of banks did the river have at that time?

A- It had pretty well defined banks.

Q- Well were they steep or sloping?

A- Well in the immediate vicinity of the American-river Bridge the bank on the North side of the river was a pretty steep bank, well defined.

Q- About how high?

A- I can not remember exactly

2332

4-D.

but probably 8 or 10 feet.

Q. On the north side?

A. On the north side yes sir.

Q. How was it on the south-side?

A. On the south-side there was a pretty well defined bank but sand-bars had formed out into the channel of the river.

Q. At that time was the river a narrow or a broad river, a wide river?

A. Well what we call within the banks of the river was pretty wide. Of course in the Summer time the water course was very narrow there being but very little water in the river.

Q. Did you ever have occasion about that time or since to examine the bed of the river, the depth of the sand about where the rail-road crosses the American.

A. At one time, the Railroad Company in about 1870 purchased a track of land of Myer to use as a sand-pit. It contained material for widening our road, strengthening

2333

and straightening it and when we came to open that pit we found a deposite and we got what we called a "face" of from ~~two~~ two to seven or eight feet, I should think eight feet was the highest.

Q. A deposite of what?

A. What we call the "face" in working the bed — we were working a ~~bed~~ pit with others and we worked against the face of the pit.

Q. You found that a depth of how much?

A. From two to probably seven or eight feet before we came down to the old alluvial soil.

Q. Through what kind of material did you work?

A. Fine sand and what is called slickens.

Q. What was the length of this work that you made there, the pit that you made?

A. A thousand feet. The track of land was a thousand feet in length.

Q. Did you work down to the

6-D.

bottom of the river or the bed of the river?

A- No sir, this was not in the river at all. This was on the bank of the river or near the bank of the river on the natural ground.

Q- Well did you find that deep on the natural ground?

A- Yes.

Q- On the bank of the river?

A- Out side of the bed, may be 100 yards. The north side of that track of land may be one hundred yards from the bank of the river.

Q- Where was that?

A- That was west of the American river bridge, the Railroad bridge, and commencing within one hundred feet of the bridge.

Q- That was opposite the Tivola then was it?

A- Yes.

Q- On the north side or south side of the river?

A- On the south side — on the south bank.

Q- Did you notice the surrounding

2335

7-D.

country and compare it with that portion of the country that you were working.?

A- The whole region there is about the same condition.

Q. How much of the country was there there, that was in that condition?

A. Well I never went much above the bridge, not much above Smith's Gardens, but, up through Smith's Gardens for some little distance and down maybe for a half a mile below the bridge, that was the condition of things.

Q. Did you notice the extent of the land that was covered in that way back of the river, running back from the river, running south?

A. Yes, that state of things existed nearly to the levee.

Q. How far is the levee from the river there or was it at that time?

A. Well I should think it was two thousand feet

Q What was the character of this sand and sediment. Describe it

8-D.

as near as you can.

A. I do not know ~~that~~ I can describe it particularly.

Q. Look at these bottles and see if you can find anything of that kind of material there?

A. [The witness examines] Number ~~six~~ I should ~~think~~ say that was something like some of the stuff we found there.

The Court — The reporter has marked the two bottles put in by Hodgdon, one as "number eight" and one as "number nine". The sand is marked "No. 8" and the other material "No. 9".

Mr. Hart — The witness refers to "No. 5" and says there was a good deal of that material.

The Witness — There was some material that was not sand and it was not as solid as this pulverized material.

Q. Open that if you want to.

A. No, I can see what it is.

Q. There was some more material that was not as solid as No. "5"?

9-D.

A- Yes; and it was not sand either.

Q- Like the fine material in "No. 9"?

A- Yes.

Q- Which of those material was there in the greatest proportion?

A- We found slickens there

Q- Slickens was there in greater proportion than sand.

A- And stratas of sand.

Q- How near to the tops of the banks was the river filled at that time with sand and slickens say in 1865?

A- My recollection is the bars there were ~~the same~~ some five or six feet below the banks of the river, the tops of the bars.

Q- At that time?

A- Yes.

Q- Have you noticed any changes since that time?

A- Yes I think that the tops of the bars are nearer to the bank of the river now than they were then.

Q- How much nearer

A- Well pretty nearly up to the bank within two or three feet in some places.

Q- On both sides?

A- Well yes on both sides. The summer stream meanders through this river bottom so that in some places the water is next to the bluff bank of the river even now.

Q- How broad is the river at that place?

A- The American river?

Q- Yes, the place where the track runs across.

A- What would be called the banks of the river now at the American river bridge, are about nearly six hundred feet.

Mr. Catlin- When you speak of the American raiver bridge you mean the railroad bridge don't you?

A- yes

Mr. Hart- six hundred feet ~~fe~~ between the original banks

A- In the original banks, no sir, as the banks are now. At that time the river was ~~not~~ as wide as its is now, ~~those~~ that is the banks of the river were not as far apart as they are now at that place.

Q- You say the river is filled up nearly to the original banks. State whether or not the filling extends clear across with the exception of the summer bed?

A- Yes, with the exception of the channel.

Q- How broad is the channel in the summer time?

A- Well I do not know, I suppose it would be about 100 feet wide in places.

Q- Do you know how deep.

A- No sir I do not.

Q- You do not know how deep. Have you had occasion to observe the river further down on to the mouth of the American river?

A- The old channel of the American river opposite Agricultural Park or opposite what

12-D.

~~what~~ we call Rable's Tannery

Q. What condition did you find that in 1865?

A. That was entirely filled up. It is entirely filled up.

Q. When was that filled?

A. This filling has been going on for a series of years.

Q. Well have you noticed whether it fills a little more each year or has filled up all at once?

A. That has been the case.

Q. Gradually filling each year?

A. Yes in that place.

Q. When did you notice that the old channel was entirely filled up?

A. I cannot tell the exact time but the new cut was made there and from that time on there was a gradual filling in of the old channel of the river.

Q. What ~~has~~ is it filled with?

A. That is filled with the same material

Q. Sand and sediment

A. Yes.

13- D.

Q. State whether or not you have noticed the operation of the water annually upon these deposites in the bed of the river, what effect ~~the~~ water has upon them, say the first rise in the river? ~~I do~~

A. I do not know that I exactly understand your question.

Q. What effect the ~~wa~~ rise in the river has upon these deposites, whether to fill it up higher or to wash it out

A. The first rise has the effect to scour it out.

Q- How often have you noticed that?

A- Well almost every year.

Q- Do you remember the last time you noticed this scouring out process?

A- Yes, last winter.

Q- How deep did it scour out last winter?

A- That the water by the K street grade at 26 feet all the time it kept at 26 feet ~~that~~ ~~the~~ we found 50 feet of water at the bridge there

Q- How deep would that scour it

A- That would scour the bottom of the river up about 20 feet or 22 feet in that place. Q- Do you know how far up this scouring had extended?

A- It extended to some extent up as high as the north end of the Old Gas works now used as a store house by the Pioneer Mill, I took soundings on the west bank or west side.

Q- Of what river?

A- Of the Sacramento River.

Q- I am speaking of the American River?

A- Now I think you are mistaken or I have mistaken you about the locality of this bridge. If you have been thinking of the American River bridge I have been thinking of the Sacramento River bridge.

Q- That is, only for the moment, I suppose. I have been examining you about the American away up. Now then I understood you to say that the American had filled up from bank to bank excepting where the channel runs?

A- Yes, it is well filled to the bank

Q- Now I ask you what

effect the water has upon those fillings in the American river?

A- It has the same effect there that it does in the Sacramento It scours it out in floods

Q- Did you ever sound in the American river?

A- I have never taken any soundings there but I remember very distinctly of the wash out that we had on the south end of the old truss bridge crossing the American That four or five bents went away there, washed out entirely and could not find the bottom; the current was so swift.

Q- What time of the year was that?

A- That was during the flood time, I can not remember the year it was somewhere in 1875 I think or along there somewhere

Q- How are those bridges secured?

A- The truss bridges are on a pile foundation piers and a pile foundation. The trestle work is a pile foundation, but single piles; just four piles in a bent.

Q- Did you undertake to find the bottom of the river there? You say it was pretty deep?

A- Yes

Q- What did you do towards finding the bottom of the river?

A- We tried by using poles and sounding lines to get at it, but the current was to swift.

Q- Could you get down to any considerable depth

A- No. It ~~was~~ washed out I think three bents of the trestle bridge.

2341 Q- How deep was that

A- It washed those piles out, it would have been probably 25 feet below the natural surface of the ground, the bank of the river.

Q- Below the natural surface?

A- Yes.

Q- Or the surface made, this sand surface?

A- The natural surface bank of the river

Q- Where was this washing out done? In the channel or on the sides of the channel?

A- The south bank, the natural south bank of the American river perhaps to that time was just at the south pier of the truss bridge, as it was then. That is we had this wash out during the summer; we built two spans of the Howe truss, 150 feet each south of the then bridge — of the then trestle, the

~~first~~ truss bridge.

Q- The material which you speak of as filling up the river is that sufficiently adhesive to resist the operation of the water-swift currents?

A- No.

Q- How far down the river did you undertake to take soundings of the American at the time you speak of?

A- Only right at the bridge. We could not get any where else.

Q- What effect if any did the subsequent flood have upon that portion of it which was washed out; the subsequent floods of that year?

A- When the floods were over; the water went down and we found, apparently the same old deposit there.

Q- You found the sand

there again?

A- We found the sand and sediment there.

Q- Now those points on the Sacramento River where you say you took soundings where is that, with reference to the mouth of the American river?

A- I should say we took soundings as far up as one third the distance between the bridge, the Sacramento and Yolo bridge and the mouth of the American river

Q- Just below the American river mouth then?

A- I say the distance from the bridge up would be about one third of the distance between the bridge and the mouth of the river.

Mr Catlin- I understood you from the bridge up to the old gas works?

A- Yes

Mr. Hart — Q — Where are the old gas works with reference to the present mouth of the river?

A — I say about one third of the distance up from the bridge.

Q — How far is it from the bridge up to the mouth of the American river.

A — I never measured it ~~and~~ but I think it is about half a mile may be more

Q — Your soundings then were for about 1/6 of a mile Did you take them the full width of the river?

A — Yes

Q — State whether or not you know the sand bar that is just below the mouth of the river? A — Yes.

Q — Did your soundings cover any portion of the bed of the river, that is cover above the sand bar? A — Yes

2350 Q — How much?

A- Well that bar has varied, ~~many sounding~~ from one year to another in its extent. Some years it would be down some four, five, or six hundred feet. Five hundred feet - below where I took soundings; the upper line of soundings.

Q- How much did you say that sounding showed the river had washed out?

A- I calculated about 20 to 22 feet that the bottom of the river had scoured out at the bridge

Q- How much did it scour it above the bridge?

A- Well I could not tell you how much, but it certainly did scour a great deal.

Q- How was the bed of the river near the bank on the west side, no, on the east side at the time you took the soundings?

A- What locality? Above

or below the bridge?

Q- Above the bridge?

A- Well the water was pretty deep there where this bar had formed during the summer.

Q- Had been washed out?

A- Had ever been washed out?

Q- State whether or not it was deep enough to permit the navigation and permit the steamboats at that time-

A- It was at that time.

Q- That was in the winter was it? A- Yes

Q- If the bed of the stream had remained as it was when you ~~had~~ made the landings would it have been sufficient for the landing of the steamboats during the summer time?

A- I think so

Q- How high are the banks above low water mark there in the summer time?

235-2 A- I can not tell exactly.

Q- Is that sand bar above low water mark there now

A- What?

Q- There is a sand bar there now is there not?

A- Yes.

Q- How far up the river do you estimate that navigation could be carried, along the bank; on the east side, if that washing were permitted to stay as it was, when you took the soundings?

A- Well I estimated that at that time in that stage of the water when the scouring had taken place, boats could go anywhere.

Q- But I mean at low water mark?

A- Even at low water mark the boats could have gone up the river at that time.

Q- On account of the scouring out?

A- That bar had entirely
235-3 disappeared, there was no

bar there at all.

Q- There was no bar?

A- No. At high water.

Q- What year do you say that was? That was this last winter; last February

Q- You say that the river had washed ~~out~~ at the bridge also; what is the nature of the bottom of the river in the summer time at the bridge now, without any washing out?

A- The same material; sand and sediment.

Q- What was it at the time you took the soundings?

A- The same thing; sand and sediment

Q- At the time you took the soundings? A- Yes

Q- They had not all been washed out?

A- No. We could cross coarse sand out there sounding; we took that very material up. We had a cavity in the bottom of the lead, and put some tallow in it and brought up this material.

Q- And found it to be the same? A- The same. In some places sand and in some places sediment.

Q- The same quality as this?

A- Some of the sand was coarser than that, which I secured. Perhaps it was as coarse as that (Number 8)

Q- Did you notice the bed of the river then after the water had subsided after that winter; after the flood had gone away?

A- We kept those soundings up until the water got pretty well down; until it was quiet

Q- What observation did you make there? just give us the result of that as you made the observation each day?

A- I can not give you the figures because they are quite voluminous you know.

Q- You can give us,

generally what you found to be the case, so far as the operation was concerned?

A- Well we found as the water subsided that the water became more frequent there and the old bars and old bottom begun to show themselves again

Q- Did you notice the condition of the water itself during that time as to being muddy or clear?

A- Yes.

Q- What was it?

A- Very muddy

Q- Pretty muddy?

A- Very thick, I say very muddy.

Q- What was it thick with?

A- Thick with sediment

Q- Did you notice any sand?

A- I didn't notice any in particular but I have seen sand rolled along in the water. Held in suspension by the rapidity of the current.

Q- In what quantities?

A- Oh I do not know, mixed

in with this sediment.

Q- In large or small quantities?

A- Large quantities; ~~larg~~ quite large.

Q- Coming from what direction? A- Coming from the north - the direction of the American River and the upper Sacramento.

Q- Did you notice at that time the water of the two rivers and compare with the water of the Sacramento immediately above where the ~~American~~ Sacramento puts in with the water of the American River? A - I didnot I did not notice any difference.

Q- How long was it after this washing out and scouring out, before the river again began to fill up with sand and sediment at that point?

A- Well I think that that filling commenced just as soon as the flood was over.

Q- Do you know what caused it?

A- What caused the flood?

Q- No. What caused the filling up, and why was it filling up when the water was low and didn't fill up when it was high?

A- The water became sluggish and lessened in speed and this material that was held in suspension probably dropped to the bottom of the river.

Q- What difference is there between the current in the winter time and in the summer time?

A- That varies according to the height of the water There is a very great difference

Q- How far down the river have you noticed this deposit in the Sacramento

A- Well I went down last spring with the Board of Supervisors as far as, I forget the name of the place.

Q- Was it the first place below—?

A- No, it was Courtland.

Q- How did you go down?

A- I went down in the steam launch belonging to the State Engineer.

Q- What was the object of that visit?

A- The object was to go along the river and the river banks to see what damage had been done to levees and the general condition of things.

Q- After going down the river from the bridge to where the south side of Sacramento intersects the Sacramento River what condition did you find the bed of the river in there, all the way down?

A- At that locality there is a bar on the west side of the river; the channel is on the east side.

Mr. Catlin- At which place

2359 Courtland?

A- No, the counsel is speaking of the south end of Sacramento.

Mr. Hart - Q- And from there up to the bridge, how is it? ~~from~~ A- From there up to the bridge the channel is on the east side and the bar is on the west side. Above the bridge the channel is on the west side and the bar on the east side.

Q- Do you know what caused that? A- Yes

Q- What is it?

A- It is the current from the American river striking across on the west bank of the Sacramento river and rebounding and striking the ~~point~~ east bank, just at the Railroad bridge, from there down the channel is on the east side.

Q- To what extent is the bed of the Sacramento river filled up along the City front? A- Well I should

2360

across the river then.

Q- What time of the year was it you took those soundings?

A- That was from February. I ~~sounded~~ commenced taking those soundings in early part of February and continued I think for six weeks or two months.

Q- Would you say that the scouring out did or did not extend further up than the old gasworks?

A- I have no doubt it did. I am speaking of the point where I took the soundings

Q- You didn't take the soundings further up than that? A- No

Q- What was the extent of the scouring out so far as the width of the river or of the scouring, was concerned?

A- In this locality the scouring above the bridge took place mostly say it was filled up very considerably. Our low water mark now is some four feet higher than it was at, when I came here.

Q- Four feet higher than it was in 1865? A- Yes

Q- Do you know whether at that time the river bed had been filled up - in 1865?

A- I think it had, because the low water mark at that time was - I can not remember how much, some two or three feet above the zero of that guage, which was at the water of low water mark of 1849

2362

Q. What guage is that that you speak of?

A. That is the guage that is used by all the inhabitants of the City here to show the hight of the water. It is the guage that I found when I came here along on a pile and between the bulk and the bank of the river, ~~the~~ just north of the north line of K. Street

Q. How long has that guage been used do you know?

A. It has been used since then

Q. And then you say that there is, between low water mark at this time and low water mark is at is in 1849 as shown by the guage?

A. That would be between six and seven feet, about six feet and a half

Q. What is the reason that the low water mark is higher now than it was 1849?

A. Necessarily from the filling of river bed

Q. What is the character of the filling which you found along up and down the river between the South side of Sacramento or in front of the City of Sacramento?

A. What is the character of the material

Q. Yes sir A. The same material

Q. Now has this filling process had any other effect upon the river at Sacramento, than the raising of the bed? A Yes.

Q. What has it been?

A. For some distance below the railroad bridge, from the railroad bridge some distance down it has had the effect of narrowing the river and filling on to the slope of the bank

Q. It has been narrowing and raising up both A. Yes sir

Mr. Catlin Objects to the question as leading

Mr. Hart What did you say. State in your own language what the effect has been.

upon the river there, the filling up? A It has had the effect of narrowing the space between the banks of the river in addition to filling the bottom. That is there are deposits of this material this sediment and sand and such like on both sides of the river, up on to the slope as it slopes down into the bed

Q. What kind of deposits have you found in the slope on the sides of the bank?

A. The same material

Q. The same material?

A. Yes.

Q. How far down the river did you find this same material in this trip that you made

A. As far as we went we found material of that same kind

Q. How far down was that?

A. To Cortland

Q. How far is Cortland from here? A. I can not tell you exactly, I do not know, a number of miles

2365

Q. Can you estimate the distance?

A. Twenty-five or thirty miles I should think, I do not know exactly

Q In your observations as you went down the river did you notice any difference in the amount of filling up at different localities and points?

A That I could not tell about because I was not familiar with the river down there. It was the first visit of that kind that I made for such a purpose

Q. In the observations you have made along the City of Sacramento, what have you noticed in reference to the manner in which the filling up goes on yearly, that is whether the amount is increasing each year, or decreasing that is the amount of actual filling each year?

A. I think there has been a gradual filling

Q. But what I want to get

at is, whether it fills more each year than it did the year before, that is more in quantity? A. I do not know that it does. I suppose at some years there is more of deposits than there are at other times.

Q. What has been the character or the comparative character of the waters during the several years that you have been here, coming down the American say.

A. Well, it has been thick and muddy all the water has.

Q. Has it been growing more so or less so?

A. I think that the water may be a little thicker now than it was then, not a great deal.

Q. A little thicker than it was when? A. 1865.

Q. Which is thicker the water in the American or the water in the Sacramento?

A. I think water in the American is somewhat the thickest.

Q. Is the water in the American

that comes down here fit for domestic use?

A. Well, it would not be without settling

Q. Do you know whether or not the water of the Sacramento river is fit for domestic use?

A. It is used for that purpose. Whether it is fit or not is another question

Q. For what purpose is it used?

A. It is used for all domestic purposes, for drinking and for all uses

Q. Would it be at all fit for cleansing purposes?

A. Well, there are times when it would hardly be fit for that but as a general thing it is

Q Did you notice any difference in the character of the water this last fall, any change?

A Well, the water has been quite clear this year, rather clearer than usual

Q. How long has that been so?

A. Well, I do not know exactly

I have noticed it several times

Q. When did you first notice it if you remember?

A. I can not tell you when

Q. Well, cant you tell nearly when? A. No sir

Q. Cant you tell whether it was in the summer, spring or fall? A. It was after the water had got down to low water or near low water

Q. Do you know whether it was before or after the commencement of this suit?

A. I do not know about that

Mr Catlin. Which river are you speaking of now?

A. The Sacramento

Mr Hart. Have you noticed anything with reference to the American, whether it has become less muddy?

A. I have not, because I have not been out there much I have had no occasion to go

Q. State whether or not the bed of the river in its present condition can carry as much water as it comes in 1865?

A No sir, I do not think it can

Q. What difference is there if any, if you can approximate it

A. Well, I can not tell exactly. The banks and the bottom of the river have filled to a certain extent and of course decreased the carrying capacity of the river

Q. What is ~~it~~ that increases the carrying capacity of a river, its width or depth, which increases it most? A Both

Q. What is it that increases it most, or has the greatest influence? A. The depth would have the greatest influence

Q Do you know whether or not it requires, or does it require as much water now to produce a flood as it did in 1865 when you first came here?

A. I do not think it requires as much water to get the river out of its banks as it did then

2370

Q. That is a flood is it not? About what difference is there?

A. It is pretty hard to tell

Q. Well, is there a very large or a very small difference

A. There is quite a difference, quite a percentage

Q. How much water was the American river carrying at the time that your bridge was washed away? A. How much water?

Q. Yes. A very large or a very small quantity?

A. A very large quantity of water

Q. Do you know the dimensions of the water that was carried at that time? A. No sir

Cross-Examination of Joseph R. Wilkinson

Mr. Catlin. How far above the railroad bridge on the Sacramento did you make those sounds? A. Up to the north end of what used to be the old Gasworks now used as a Storehouse for the Pioneer Mills

Q. Can you tell what distance in feet that is?

A. No sir, I have not got it in my head. I have got these things all on paper but I do not pretend to remember these things in detail

Q. Then the gas works and the Pioneer mills would be the only two buildings between that point? A. The old City Gas works are now used as a Store house for the Pioneer Mills

Q. Cant you give us about the distance of those two points. What front did the Pioneer mills and the Gas Works have on the river there; What extent of front on the river does the Pioneer Mills and those Gasworks occupy.

A. Well, I can not tell you I could tell you at my office

Q. Does it exceed five hundred feet? A Yes sir

Q. How much?

A. More than that, it is nearer one thousand feet

Q. Well about one thousand feet? A. Well between Eight hundred and a thousand feet I should judge

Q. Now what is the distance from the upper End of the Gas Works up to the present mouth of ~~the~~ American River?

A. That I can not tell you, I do not know what it is, I can only estimate it

Q. Is it not about three quarters of a mile from there?

A. It may be Mr. Catlin, I do not know I have never measured it.

Q. Now the point to which you extended your soundings covered be the south bank of the old Mouth of the American River

A Yes sir, just about the south bank

Q. You did not sound up the river across to the old mouth of the American?

A. No sir

Q. And you sounded below the bridge how far?

A. We sounded below the bridge I think to the south line of J. Street.

Q. About the south line of J. Street? A. Yes sir

Q. You found when the water was highest 50 feet of water at the bridge? A. Yes sir, one day we found fifty two feet

Q. One day you found fifty-two? A. Yes sir that was at high water

Q. That was when the water was?

A. The water was about twenty six feet on the K. Street guage

Q. Did you find that same depth up and down your soundings

A. No sir, that was at the bridge

Q. Now, what caused it to scour at that depth at the bridge? A. The presence of the piers there caused that in that immediate vicinity

2374 Q. The piers disturbing the

ordinary flow of the current, produced that scouring of a hole there did it not? A At that place

Q. It made it deeper there than elsewhere? A. Yes sir

Q. Was the American river at that time, the old bed, was that carrying any water there?

A Yes sir, I do not know that it was carrying any water — the water had backed up in there

Q. At extreme high flood did not the old bed of the American river bring some water around with a current? A. Yes sir

Q. Didn't you observe at the time when the water was the highest, that there was a considerable current of water coming down through the old bed of the American river?

A Well, there was considerable current all the way from the North levee to wherever the current extended north. There was more or less of a current all across there

Q. Through the old bed of

the American River?

A Well, I do not know that the old bed showed any more current than the rest of the country did

Q. Well I am asking you whether the old bed showed any current?

A It did

Q. I am not comparing it with any other current. Did it show a current?

A Yes Sir

Q. Then the ~~American~~ American river was discharging through its old mouth and its new one at the same time?

A. Yes sir, it was discharging all across the country there

Q. It overflowed all that land through there?

A Yes sir

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Q. Now you mean to say that at that time there was no bar starting from the north or upper side of the old mouth of the American River, and from thence up to the present mouth, was that bar scoured out last winter? A In my opinion it was

Q. All the way down from the mouth of the American River? A. I do not think there was any bar there

Q. What makes you think so? A. Because we did not find any bar where we took soundings

Q. You did not find any bar near the upper end of the gas works? A. No sir

Q. You did not go any above that, you did not sound any above that? A. No sir

Q. Did not the current of the American River as it came out of the

2377

mouth strike over against the bank of the Sacramento River? A. The American does when it is flooding

Q. Does it not k not now? A. Well not to any great extent; no sir

Q. I am speaking of the old mouth, dont the current of the Sacramento River, and the American River when it unites at its mouth, pass down against the bluff shore on the other side at this time? A. I do not think the Sacramento does. The channel is on that side. I do not think that the American has any effect

Q. Where does the water of the ~~Sacramento~~ American go; does it not go right into the Sacramento, and mingle with the Sacramento, and pass down upon that bluff bank upon the other side? A Yes sir I suppose so, although the current from the American River as at present running does not get across the Sacramento at all on to that bank. It is not forcible enough

Q. Where does it go? A. It mingles with the waters of the Sacramento

Q. Does it not go across and against the bank on the other side after it mingles with it? A. I do not think the current gets across now. I do not think it is strong enough. I think it takes the course of the Sacramento River before it gets across to the bank

Q. It is absorbed by the Sacramento and the Sacramento runs on the west side? A. How is that?

Q. The American is absorbed by the Sacramento, and then the Sacramento passes down on the west

2379

side? A. Yes sir

Q. Leaving that bar on the east side? A. Yes sir

Q. Well, was not that the course of the water when it was high? A. It was to a certain extent

Q. Would not that naturally leave a bar there - would the current scour out the river on the east side? A. I think ther was a current across the whole width of the river, enough to scour that bar out

Q. How far down do you suppose it scoured that bar - clear to the mouth of the American? A. Well as I tell you, Mr Catlin, we found no trace of a bar where there had been a bar during the summer, as far up as we took soundings

Q. I understand you sounded up to the gasworks? A Yes sir up to the old mouth of the American River

Q. And up to the south side of the old mouth of the American River? A. Yes sir

Q. Then I ask you from there up, which was about a half a mile, as you can see by the bar now, or perhaps more? A. Yes sir

Q. How much of that bar scoured out last winter?

A. I simply say that in my judgment, it all scoured out, or nearly all of it.

Q. Your judgment is based upon the single fact that it all scoured out as far as you went? A. No not entirely that; it is based upon my observation, and experience in the action of the river

Q. Does not your experience teach you that when the water is high

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and bringing a large amount of sediment and sand, and the current passes over on the west side of that river, that it leaves a bar on the east side? A. Yes sir I do not think the water always passes over on that side of the river

Q. Not all passes, no, but the bulk of the current; the bulk of it, passes over there?

A. I think that at the flood height in the Sacramento River there is a current all the way across the river

Q. Is the current as swift in the stream as swift on the east side as on the west?

A. I do not think it is when the American is flooding. The American is a quick river you know, and a flood does not last a great while in that river. The Sacramento will flood for days and days after the American has stopped

Q. I will ask you about the bar on the west side of the Sacramento opposite the main front here - there is a bar there, is there not?

A. Yes sir, more or less of a bar every year

Q. On the Yolo side? A. Yes, sir

Q. Was that scoured out?

A. Our soundings showed that

Q. Clear up to the other side? A. As far down as we went

Q. But did you sound all the way across the river?

A. Yes sir I took cross sections across the river from one bank to another in I do not know how many places, probably a dozen different ~~place~~ soundings

Q. Is not there a wing dam in there? A. There used to be one

Q. Is it not there now?

A I do not know that ~~there~~ it is.

I have not seen any traces of it for some years

Q. Were those piles that that wing dam was composed of in there when you made those soundings? A. I do not think they were

Q Do you know whether they were?

A. I did not see anything of them, and did not feel anything of them. I have not seen that wing dam for some years. I think it is all carried away.

Q. Well what depth of water did you find when you made those soundings where that bar or shoal is now on the Yolo side opposite the foot of K street? A Well I do not remember now Mr Catlin. I have never attempted to impress those things on my memory. The only sounding that I do remember, was the sounding at the foot of the bridge there; the one that I spoke of

Q. Well can't you give us some idea of the depth of the soundings you found on the American River, say opposite the foot of K street or L street to M street? A. Well, if I recollect right something abot 30 or 35 feet at high water

Q. You found it about 30 feet there when you found it 50 feet at the bridge?

A. Yes sir, I have got all of those things on paper. I have not attempted to impress them on my mind at all

The Court By your soundings how deep would that water have been at low water?

A. Well probably 12 or 14 feet deep

Q. At Low water? A. Yes sir

Q. Have you made any calculation as to that?

A. No sir

Q. Can you? A I do not know whether I could or not. I have got those soundings there, the record of those soundings will show, and if we have a record of low water we could tell. These soundings were taken each day, and the height of the water on the K street guage noted, that is to say on a certain day we noted that these soundings were taken with the water standing at 25 feet 6 inches or something like that

Q. If it was only 30 feet it would not be very deep at low water?

A. Well, I think it was more than that

Mr Catlin During how long a period were you engaged in making these soundings?

A. Well I do not remember now; it was over quite a length of time, until the water had subsided considerably ~~entirely~~

Q. A week or ten days?

A. Yes sir more than that

Q. Two weeks? A. Yes sir

more than that

Q. During the period of high water? A. Yes sir during the period of high water we took the soundings every day, and after that if I remember twice a week

Q. For a month or two or three months, give us some idea of about it? A. I do not remember how long it was. I have a good many things to think of and I did not impress it upon my mind, and there was nothing particularly to call my attention to it.

Q. And when the river was up to a depth of 25 or 26 or 24 feet, and it was scouring the river to a depth of nearly the old bed was not its capacity then equal to what it formerly was?

A. Well, I do not know. I hardly think it was, I do not think it would go down to the old bottom?

Q. It did not scour down to the old bottom? A. These scourings are not uniform at all. The action of water is very peculiar sometimes. It is not uniform, in some places you will find holes and other places deposits and all that sort of thing and they vary from year to year

Q. Before the river was scoured down in the manner that you describe was its carrying capacity equal to that in 1865?

A. I do not think it was

Q. It did not scour down?

A. Well there was a deposit of this material under the old wharf there which was not washed out at all, there was quite a deposit in there of some 25 or 30 feet wide

Q. Now with the exception of those accumulations on the sides such as you have

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described, as existed under the wharf there, the carrying capacity would be restored, would it not? A. I suppose it would be restored in a measure

Q. Does not the railroad wharf there obstruct the passage of the water as you find the piles driven out onto the slope of the original bank of the river? A. Yes sir.

Q. Do not those piles obstruct the current, and cause still water in there, and cause these deposits?

A. It would have that effect - Yes sir to a certain extent

Q It does have that effect?

A. Yes sir

Q. How far has the railroad wharf extended out into the the river from the old bank from the bridge down?

A Well about 50 or 60 feet probably, that is from the inside planking, the old planking from the outside of the wharf

Q. Those are built on piles are they not? A Yes sir

Q. Are the piles pretty close together? A. Well not very close; I suppose they would average about ten feet one way and twelve the other. There is an explanation that I would like to make in regard to the depth of the water I spoke of; you must remember that the low water that we have now is some six feet and a half or seven feet higher than the low water of 1849

The Court I understand that, but you could not correctly give the extent of the scouring unless you can compare it with the height of the water at low water? A. When I said that we found 30 or 35 feet of water, the 6½ or 7 feet on the guage at low water now must be taken into consideration in calculating what the depth of water must be at low water

Mr Cadwalader What extent has the railroad embankment concentrated the waters of the American River?

A. Well there is no concentration there except that caused by the pier and the filling whatever that is

Q. Does the embankment obstruct the water at high water?

A. Yes sir

Q. How far is the trestle work?

A. The trestle work and the truss bridge together is a mile and a quarter. It ran across the entire bridge

Q. The bridge did not obstruct the water at all? A. With the exception of the piers and the piles under the trestle, that is all the obstruction

Q. When the railroad was first constructed in 1865 did they not have embankments there then instead of trestle work? A. Yes. They had embankments at the north end

Q. In later years they have made use of trestle work instead of embankments?

A. In 1867, I think it was in the winter of 1866-7, that embankment was carried away by a flood. ~~That is about~~ There was twenty six hundred feet of embankment carried away

Q. Now, then, prior to that time did that embankment have the effect to back the water of the American up?

A Previous to that it did

Q. I say, previous to that time

A Yes.

Q. It was carried away and damaged then, and since that time you have used trestle work? A. Yes

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The Court. That was the flood of 1867-8?

A. I have forgotten whether it was 1866-7 or 1867-8; Yes, it was 1867-8

Mr. Catlin. Well, was there not some embankment there used up until a later period than that, instead of trestle work? A. No.

Q. It has been all trestle work you say since 1868?

A. Yes

Q. That bank was cleaned out? A. That bank was cleaned out right down to bed rock in most places. There was a little section of about two or three hundred feet left at the extreme south end of the bank

Q. What became of that accumulation in there? where did it go?

A. I do not know, it went down stream I suppose

Q. Did it not lodge over the adjoining lands there?

A. I dare say

Q. What scouring effect would there be if all the water was confined by levees in the Sacramento River?

A. It would have more of a scouring effect

Q. To what extent? how much more?

A. If confined in the levees of the Sacramento river

Q Yes. Suppose the levees on the Sacramento River were sufficient during the periods of high water to prevent overflows and keep all the water in the river, what would be the effect on the scouring process

A. It would have a better scouring effect certainly.

Q. How much?

A. I could not tell you.

Q How extensive?

A. I can not tell you. I have not made any figures on it at all, nor made any observations.

Q You have given me your

opinion in regard to the bars being washed away. Now give me your opinion in regard to What Effect that would have bars in the river if the levees confined all the water in the river?

A. It would have a better Scouring Effect. It would have the Effect to remove the bars to some Extent to some other Locality; I do not know Where it would go to

Q. During these high floods — Take as an Example the one of the year 1880-81, the last one — What proportion of the Water that passes down west of this City passes in the Channel of the Sacramento and What proportion passes in the tule basin?

A I can not tell you. I have not made any Estimate of it

Q. Do you think the Sacramento carries one twentieth part of it?

A. Well, I do not like to

give much of an opinion unless I have made some estimate. There are several items come in to make that quantity.

Q. To what extent was the width of the water last winter between Washington and Davisville?

A Something like nine miles

Q. Was that a flowing current of water?

A Yes. To a certain extent

Q. How much current would there be in the middle of it, or where it was swiftest and strongest?

Mr. Hart. This is not cross-examination. It is entirely outside of the direct examination

Mr. Catlin: I think it is cross examination. Just answer the question that I put to you

Mr. Hart. Does the Court think that this is cross-examination?

The Court. I suppose it is to show that that affected the bar. That is the object I presume

2396 Mr. Catlin: Yes sir. How

much current did it have in the tube there?

A. In certain localities quite a current through the openings in the railway

Q. What was the extent of those openings in the railway before the recent improvements? As they existed when the flood commenced last winter

A. I do not know the length of the openings there I never measured them

Q. Can you approximate it?

A. I do not know that I can

Q. You can not tell whether half a mile or a mile can you? A. Yes

Q Or one and a half miles?

A I will tell you. I do not like to give a guess at any thing of that kind, when I know that these things are of record and I can get them, and find out exactly what they are If I make a guess at that and find I am out of the

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was a thousand feet or half a mile then it throws a little shadow on my judgment, does it not?

Q. I ask you if you can bring those records? You can find them in your office can you not? A. I can find out in San Francisco. Those records are in San Francisco

Q You can furnish that information here in two or three days can you not?

A. If the railroad company will permit them to be furnished. The records are not mine.

Q. If it was material here or the Court desired to know what the length of those openings was, could you not produce that information here in two or three days, that we may have it put in evidence

A. Yes

Q Will you do so?

A. If I am paid for it

Q. The State is wealthy and can pay you

Mr. Hart. The State is not going to pay him to go to San Francisco and get evidence for you by any means

Mr. Catlin. Then I will get at it in a cheap way. Would you say it would amount to one and a half miles. You have to approximate it; I supposed we would be able to get at the exact figures

A. It would amount to more than that

Q. What? A. It would amount to more than one and a half miles? *

Q. As it exists now or as it existed before?

A Well, there was 3000 feet of additional trestle work put in this year; a thousand feet near Washington and two thousand feet near x

Q. What is the extent of the largest opening where the water passes through

A. That bridge I can not give the exact length of. But it is something like forty five hundred feet long. Really that bridge and the new openings that have been put in this year are the only bridges that I can approximate the length of without accurate figures

Mr. Hart. Is that between here and Davisville? A Yes.

Mr. Catlin. Do you know what the depth of water was that passed through these openings during the high period of water?

A. Yes. It was about twelve or fourteen feet through the lowest place

Q. Right under the railroad track?

A. Yes

Q Do you know what the depth of the water would be further out in the tules? What would be the depth say a quarter of a mile south of the railroad?

A. About the same thing. There would be no great difference

Q. The bottom of the tules is generally level there is it?

A. Yes. The tules have not scoured out; have not been affected much by these currents there Bx, as far as any scouring process is concerned. The material is too tough

Q. I was not inquiring about that?

Mr Hart. I can not see how this testimony concerning water in the tules is going to affect the sand bars in the Sacramento River. I think this is entirely outside of the Examination in chief

Mr. Catlin. Where does the railroad company get its coarse sand that it uses at this time for building purposes?

A. For building purposes?

Q For filling in or any purposes? A. I do not know that they get any coarse sand.

Q. They have not got any?

A. They might come across some few strata of coarse sand but not a great deal of it

Q. I want to have you locate
2401 on the map the place where

that sand pit was. Also mark on that map the place where the railroad bridge crosses.?

A. The map does not show that

Mr. Cadwalader. The railroad crossing is at 31st Street

Mr. Catlin. Is the railroad crossing about 31st Street?

A Yes.

Q. That sand pit then as I understand you was lying between the north levee and the bank of the river below the railroad bridge? A Yes. The north line of the east end of this sand pit that the Railroad Company bought was about one hundred feet from the center of the track and then it ran west 1000 feet.

Q. Well, what was that material used for?

A. It was used for improving the ~~lining~~ alignment of the track on the levee to the American river bridge mostly. Some of it was brought into town

Q Look at that material

and see how that compares with it (No. 10) that came from a bar in the Sacramento river right opposite Doles on the Freeport road?

A. I have seen considerable of that material

Q. Have you put any of that material you took out of that sand pit into a bottle so you would be able to compare it with the different materials that you see here in these bottles? A. No, I have not. I have never made any such experiment

Mr Hart. I understood you to say that you have seen a good deal of this material in the deposit on the American

Mr. Catlin. Was there a good deal of this in that sand bar?

A. There was considerable of something of that sort in there - fine stuff

Q. This seems to be a finer quality of some of this other mixed with sediment as you can see for yourself

Mr. Cadwalader. How do you identify that? do you state that that comes from any particular place?

Mr. Catlin. Yes. I show it to the witness, and ask him how this sand looks as compared with the other

Mr. Cadwalader. You say this comes from opposite Nick Dole's

Mr. Catlin. I took that myself on Saturday from a bar in front of Nick Doles near the end of Riverside road

Witness. On which side of the river?

Q. On this side of the river? There is a bar there.

When was that deposit made there? Do you know by what flood it was made there, or whether from the accumulation of several years?

A. I think it was an accumulation of several years

Mr. Hart. Which sand is that

A. I understand counsel to mean this sand pit

Mr. Catlin. The sand pit which the Company bought lying near the Railroad bridge?

Mr. Cadwalader. Outside of the A street levee?

Mr. Catlin. Yes. Outside the levee of course. Do you recollect when the cut was made in shortening the American river?

A. I think that was commenced sometime before I came here or about that time

Q. Do you recollect when the river went through there and cut through the bank on the other side on Hoaglands land?

A. Yes. I was here that year.

Q. What effect has that had in forming bars in the Sacramento River? A. What? the cutting away of that bank?

Q. Yes. A. I suppose it contributes to the forming of bars

Q. Did you ever see that bar there on the East side of the river above the bridge and from there up to the present month of the American river before that time? Before 1867?

A. I think I saw bars there at low water to a certain extent

Q. Before 1867? A Before 1867- yes

Q. You saw some bars there?

A. Yes

Q. Have they not been very much enlarged ever since? A Yes

Q. I ask you this question: What effect did the change of the bed of the American River have upon the Sacramento in regard to shoaling? A. It had the effect to throw the channel over; to widen the natural banks of the river and throw the channel on the west side of the river, farther on.

Q. And throw the river on the East side? A. How?

Q. What effect did it have on the East side?

A It has the effect each year of making a bar there. That is my reason of this.

Q. If I understand you then, it cut into the bank on the west side and shoaled the river on the East side? A. Yes. It threw the channel of the river over on the West bank of the river. The channel is now between where Hoaglands house used to stand, where that clump of trees is, where the snags are now, and the west bank of the river

Q. What effect has that had upon the bed of the river upon the East side at that point?

A. Well, it has had the effect to change the channel of the river and form the bars in different places from where they were then, or previous to then

Re-direct Examination of Joseph R Wilkinson

Mr Hart You spoke of a channel in the tules? How far west is that of the City of Sacramento?

A. The channel?

Q. The tules; the water running through the tules at high water? A. I speak of the deepest part, or lowest part of the tules there. That is about I should say five and a half miles — five miles

Q. West of the City of Sacramento? A. Yes

Q. How long have you been acquainted with those tules?

A. Since 1872

Q. Do you know whether there has been any deposit of sand and sediment in those tules? A There has been in certain localities

Q. Where? A Let me see about that. I would say two and a half miles out, perhaps not as far as that, from Washington, there is a deposit, an evident deposit of sediment and sand

Q. How far is that do you say?

A. I should think from two to two and a half miles out; It is on the west side of Mike Brites' ranch there

Q. At the place where the sand and sediment is depositing, the place just mentioned by you, state whether or not the waters formerly ran there during high water times?

A. Yes

Q. To what depth? A. I cannot tell exactly, because that that ground is higher than in the tules

Q. Do you know how much higher? A. No

Q. What effect on the capacity of the channel there in the tules or the low land, what effect on the carrying water, has the deposit of these things had?

A. Well I do not think that

the quantity of deposit in the tules in that locality has affected the carrying capacity in that neighborhood much

Q, It has not effected it much?

A, Not a great deal, no; because it it is so ~~the~~ slight in comparison with the large area

Q. Where does the water come from that runs through that channel? A The water that comes where these deposits are formed, the water that would cause these deposits it spoke of, ~~the~~ a would come through the English break

Q. Where from? A. The Sacramento River

Q, Where is the English break?

A. The English break is just above Mike Brites' place; I do not know how far above here - some few miles - three or four miles

Q. Do you know where that water runs to? A. That comes into the tules?

Q. Yes. A. I do not know exactly, I suppose it finds its way into the lower Sacramento, and the lower basins there

Q. You do not know where? You have never crossed there?

A. I have never been down there

Q. How extensive are the deposits of sand and sediment formed in the places which you mentioned a few miles west of the City of Sacramento?

A. I do not know exactly how extensive they are, I ~~that~~ have only seen them from the railroad, that is all

Q. How far can you see them from the railroad?

A. I can see them for several hundred feet from the track

Q. As far as you can see, what is the condition with regard to sand and sediment there? A. Tules and grass and one thing and another are in the way so as to hide it from view

Q. What is the condition as

far as you can see there with reference to sand and sediment?

A. I have never examined that closely

Q. Can you see sand and sediment there? A. Yes.

Q. Do you know how deep it is at the railroad track at that place? A. I do not think there is any deposit immediately at the railroad track. That embankment was ditched up at the sides. There is a ditch along there, but that ditch does not show any deposit to speak of. These deposits are away from the road.

Q. How deep is the deposit you speak of? Did you ever examine~~d~~ it? A. Not to measure it

Q. You testified a moment ago as to the obstruction of the water by the piles at the railroad bridge running across the American River. Does that bridge commences within the limits of the City of Sacramento or east of the limits?

A. The American River bridge is east of the limits of the City of Sacramento

Q. Would any obstruction of water at that railroad bridge have any effect upon the height of the water at the city

A. Not that I know of — No

Q. Where would it affect the height of the water? A. It would affect above the bridge

Q. How far is it from that bridge to Brighton?

A. I think it is three and a half miles

Q. Mr Cattin asked you whether or not the scouring out of the river at the point mentioned by you had the effect to restore the carrying capacity of the river to its original capacity. I will ask you where the scourings go, or the result of the scourings?

A. They simply move farther

2413 down the river, that is all

Q. Well how do they operate upon the water? as an obstruction or not? A. That would be an obstruction evidently.

Q. In order to restore the original carrying capacity of the river, how far would it be necessary to scour it?

A. Well I do not know exactly how far. You have to have a place for the water to go, and this material has to be deposited somewhere

Q. I will ask you so as to make it direct; Would it not have to be scoured far enough down to prevent the scourings from operating as an obstruction? A. Yes

Q. Did I ask you where the water came from that went into the tule? A. You asked me where the water came from that went into the tule in that locality that I spoke of

Q. Did you answer it?

A. I answered you that I thought the water in that locality come from the English break

Q. Well, in any other locality in that vacinity, where does it come from. The County map shows it? A. It comes from the Sacramento River

Q. North or South of the English break? A. Well, north and south now.

Q. In the place where you say it is the deepest, where does it come from? A. I think that the bulk of the water comes from farther north than the English break

Q. What effect does the discharge of this water into the tule have upon floods, floods along the bank of the river?

A. It has this effect: that whatever goes into the tules has the effect to ease the river, to lessen the height of the water in the river

Q. And prevent floods?

A. Yes

Mr W. C. Belcher Is there any

2415 water in that tule other

than came from the Sacramento River, above the railroad?

A. Yes

Q What? A. Cache Creek, and the tributaries of the Sacramento River?

Q. Is Cache Creek a considerable stream? A It is during a storm

Q How large, if you know, approximately? A. Well I do not know. A pretty heavy body of water there

Q. How many feet wide?

A Well I suppose that the banks of Cache Creek, are something like 100 feet apart with a depth of 15 or 20 feet

Q. Are not they more than that? A. They may be more than that. Of course they are more at certain localities, and there are places where it is contracted

Q. I speak of the average width, say below the railroad bridge, crossing, near

near Cache Creek?

A. Well it may be over 100 feet

Q. And how about the rapidity of the current?

A It has a pretty rapid fall there, so it makes quite a current, a heavy current

Q. Can you approximate as to the rate per mile?

A. No

Mr Hart Do you know how long it takes the flood in Cache Creek to subside, ordinarily? A. Not very long; only a few hours - although Cache Creek acts a little different from Putah Creek. Cache Creek as I understand heads in small lakes above, that make a supply of water in Cache Creek after Putah has entirely subsided. The two streams during the flood are about the same I should judge

Q. They rise very quickly and fall very rapidly?

A. They rise very quickly and fall very quickley. But there is water running in Cache Creek, when there is not in Putah Creek

Q. How far is it from here to where Cache Creek enters into the tules? A. I do not know; I never have been there

Q. Do you know what kind of water comes in there? what color it is? A. The flood water during the flood in Cache Creek is pretty muddy, thick. But after the flood has subsided it becomes clear

Q. Very clear? A. Pretty clear.

Mr. W. C. Belcher Have you ever been at the head waters, or do you know anything about the drainage area of Cache Creek?

A. No

Q. Have you ever been there during a flood? A. No

Q. Or so as to know the length of time that the water keeps up?

A. I have been at the railroad bridges—that is all

Q. During the entire flood, or only at a particular time?

A. I have been there during the entire flood, you might say, or on different parts of the road

Q. When you say a few hours, what do you mean?

A. I mean a matter of 9 or 10 hours, 10 or 12 hours

Q. Do you mean to say that 9 or 10 or even 12 hours is the extent of the flood in Cache Creek? A. Yes. What I call the flood is while the creek is flooded

Q. That is while it overflows its banks? A. No

Q. While it is full banks?

A. What I mean to say is, ~~that~~ while the creek is flooded; that is when this force is behind it. ~~[illegible]~~ After a while the water falls and the creek begins to fall. That is what I call the flooding time

Q. Were you there last winter?

A. No, I was not

Q. Were you there in 1872?

A. No, Not at Cache Creek

Q. Or were you ever there at Cache Creek prior to '72?

A. No.

Q. Then you have never been there in time of great flood, have you at all?

A. Yes, I have

Q. When? A. I cannot ~~rem~~ re-member what year it was, but it was between '72 and now.

Q. Has there been any year between 72 and 80-81 when there was any particular flood, what we would call a great flood, following down the Coast range on the west side?

A. In Cache Creek

Q. In Cache Creek or any of the Coa streams coming out of the Coast range?

A. On the west side

Q On the west side

A. In seventy eight

Q. Between 72 and 80 - 81?

A. Yes. 78.

Q. Were you there in 78?

A. Yes sir

Q. At what time? A I was there during the highest of the water, on the road, at several places. I was at Putah Creek and Cache Creek

Q. That was at one particular time. Were you there at the time when there were a good many wash outs on the Railroad above? A. Yes sir,

Q. How long did that continue then? A It took some time for the water to go down then, But the flood stoped in a few hours,

Q. Was not Cache Creek running with full banks for more than three days

A. I think so

Q. And considerably more than that at that time

A. At that time it was running ~~at~~ full banks, it was flooded; it ran out of its banks

Q. I say, it ran without of its banks. With more than full banks, for how many days was that? A. For several days the banks were very nearly full and the water was gradually subsiding

Mr Hart We shall object to any more examination on this subject on the ground that it is not cross examination

Mr W C Belcher, Do you know anything about the Delta of Cache Creek? A. No.

Q. The amount of sediment it has brought into the low land? A. No I have never been there.

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Testimony
of
W. W. Sheldon

Called for Plaintiff Sworn

In

Mr Cadwallader. Where do you reside at present?

A. Folsom Sacramento County

Q How long have you been there? A. In Folsom.

Q. Yes? A I have resided in Folsom about eight years

Q. When did you first come to California? A. I arrived in California on the fourteenth of June 50

Q. Have you lived in the vacinity of the American River since 53? A I have lived at Mormon Island and Beals bar, with exception of about two years when I was out of the State; one year in Oregon and one year in the East

Q. Where is Beals bar?

A. Beals bar is about half a mile above the Junction

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of the north and south forks, on the north bank of the River,

Q. It is half a mile below Mormon Island is it not?

A. Oh ~~yes~~ it is in another direction. It is across on the North side on the north fork, and Mormon Island is on the South side of the South fork,

Q. I though Mormon Island was at the Junction?

A. It is above the Junction

Q. How far? A I should judge a mile nearly

Q. What place do you call the Junction of the South and North forks? A. The Junction is where the South and north forks Come in, about half a mile from Beals bar and about a mile from Mormon Island; where they Come together

Q. Has the locality any name

A. No, nothing only the Junction of the two forks

Q. The American River is a Canyon above Folsom is it not?

A Part way it is a canyon,

Steep banks on each side; not perpendicular banks

Q. Beals bar is on the north fork is it not? A. On the North fork.

Q. That is the American River proper is it not?

A. It is, That is above the junction of the south and north forks

Q. And what is called the American River proper, although it has the name north fork?

A. Yes. It is the largest stream larger than the south fork

Q. A great deal larger?

A. A great deal larger,

Q. Did you work on Beals bar?

A. I was water agent there, Selling water for the North Fork Ditch Company

Q. Did you work in the bed of the American River.?

A I did at two different seasons I had interests in the river

Q. At what place?

A I had an interest in a mining claim right at the

Junction of the north and south forks; A Claim Called the p Pinkham Claim

Q. You turned the river there did you not? A Yes. Turned it into a flume. That was in 1856

Q. Where else have you mined on the bed of the River?

A Then in 57 I was interested with a company about a half a mile or a mile below Called the Alabama Claim from 57

Q. Was that Claim below the Junction? A. Yes. From half a mile to a mile.

Q. That turning of the River is done in low water seasons is it not? A. Yes. In low water season; in the summer Season

Q You turned the water on the bar and worked the bed, ~~rock~~?

A. We built a dam and put a flume in and turned it in the flume.

Q. At the head of the bar

A Yes.

Q And turned the water on the back part of the bar near the hill?

A. We put a flume on one side of the flume and ran the water into the flume from a pump

Q. Preparing to work the bed

A. To work the bed

Q Has that river been very extensively mined? A. Yes, in places.

Q Up to 56? A. I think the River has been mined, more than one half of it, all the way up from below the Alabama Claim

Q. Up to 56 and 57 describe the nature of the mining on that stream; how it was carried on? A on the river?

Q. Yes, on the river

Mr Catlin do you mean the bed of the river,

Mr Cadwallader The bed and bars?

A. In 56 and 57 they worked the river by fluming principally; put a wheel in the flume and

Pumped the water and shovelled the dirt into the sluice boxes, Small sluice boxes, twelve inch boxes; And that is the process of saving the gold,

Q. That was done with pick And shovel? A Pick and Shovel; hand labor

Q What was the method of mining in vogue before they got to sluicing?

A. Well in early times they worked with rockers and long Toms before they got sluicing. We got to slucing pretty early; As early as 51,

Q The first that was done was Cradling was it not?

A. Yes. With Cradles, Called rockers.

Q And then long toms?

A. Yes

Q What was the first method of mining? A The first method that I mined was with a rocker. That was in Feather River. a rocker about three and half or four feet long;'

Q. And then the second method? A The second was with what we called a long tom. That was a machine about fourteen feet long maybe

Q. How wide and how deep?

A. From fifteen inches to two feet or twenty two inches wide and the sides about six inches high. The ~~lower end~~ of the tom set on an angle; the lower end had a screen made from sheet Iron, punched with holes; under that was a riffle box, We conducted our water ~~through~~ either in a hose or ~~into~~ through lead boxes into the tom. One man, ~~part of the men~~ would shovel into the head of the tom and one would stand at the lower end and work that gravel with a shovel and throw out the tailings.

Q- That was hand labor?

A. That was hand labor, That was the second process. I am

Speaking of the process that I worked,

Q Then came what?

A. Then came the sluice box,

Q. What followed that?

A. Hydraulic mining followed that; though they work through Sluice boxes the same now

Q. Did you ever do any Hydraulicing?

A. I never did but about two months. I started a small Hydraulic Claim at a place Called James point, above Rattle Snake bar, about seventy two I think

Q. You had a small hydraulic mine up in that neighborhood didnt you? A. Yes sir

Q. Where was that?

A. That was about a mile and a half above Rattlesnake Bar on the north fork of the American River

Q. What kind of hose did you have, and how much of a head? A. Well, I had an iron pipe, an eleven inch pipe and a small giant and used about two hundred inches of water through it with seventy-five or eighty feet pressure

Q. Two hundred inches of water

A. Yes sir, through a twenty inch box

Q. Comparatively speaking how much more would you move, by the hydraulic process. How much more would you wash by hydraulic process than by the sluicing process which was the largest previously known to hydraulicking?

A. I could move as much

Earth in one day by the hydraulic process, as I could move the way I mined by sluicing in three weeks.

Q Well, can't you double that?

A. I could probably if I had Sufficient Capacity of it, but we worked on a small Scale comparatively.

Q. That is, your hydraulic was on a comparatively small Scale? A. Yes sir; it was not large at the time

Q. How long did that continue there? A. Well, I sold the claim to a party in San Francisco. They worked it I think about four or five months and the dam broke at the head of the ditch and I think it failed to pay and they quit it

Q. That was abandoned in Early times? A. Yes sir that was in 1872 I believe

Q. When did you first notice any fill amounting to five or Six inches? A. Well, I

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noticed the first year that I turned the river where Pinkham's Claim was 1856, I noticed that there was tailings that had washed down the river and were filling it at that time and in 1857 ~~from~~ in the Alabama Claim.

Q. When did you first notice any fill of much consequence.

A. I noticed considerable fill in 1857 ~~from~~ in the Alabama Claim from the fact that I had a large number of men to shovel it off and it took quite a time to shovel it off and it was a heavy expense and we spent about twelve thousand dollars, the Company did. There was I suppose some tailings from the mine. The Claim had been worked the year before, and left a bank about twelve feet high of natural gravel, the natural bed of the river, left a perpendicular bank. Well, that winter before we mined the river Claim had washed that bank down and of course it had a good hold on its, and it swept it down and filled up this place with tailings, that came down the river all level again probably four or five feet deep over the natural formation of the bed. The reason we went in there, the man that we bought of, John Roman Smith, said that he left it —

Q. Never mind that. When did you first notice any further fill in the river there of considerable consequence before or after 1862?

A. After the flood of 1861-2 I noticed the river was filling up more rapidly

Q. How has the fill been since 1862? A. Well, I notice the river is gradually filling up there all the way through

Q. What changes have occurred in the bed of the river since 1862 in regard to filling?

A. In early days that is when I first began to mine on

The river there would be holes and riffles and when we would turn the river there would be left deep holes and we would have to pump out eight or ten feet of water. Since then those holes have become filled level with the riffles so that it makes a gradual current.

Q. A regular current?

A. It make a regular current now, more than before.

Q. Does that facilitate or retard the downward movement?

A. Well, I think it would facilitate it I should judge so.

Q. Over early times?

A. Yes sir.

Q. How far up the north fork are you familiar with the river? A. Well, about from Eighteen to twenty-two miles from Folsom.

Q. Where did that carry you to? A. It carries me nearly up to the junction of the middle fork with the north.

Q. Did you cross the American

River in 1866 about half way between the mouth of the middle fork and the Gold Run?

A. I did, I crossed the north fork of the American River in 1866 going from Auburn to Michigan Bluffs, I do not remember how far but I think a mile or such a matter above the junction of the middle fork with the north fork at the toll bridge there

Q. Did you notice how much fall there was in the river there?

A. Yes sir, I noticed there was some gravel on the sides, small quartz and granite gravel on the side of the river, the water where it flowed back

Mr. Catlin: When was this?

A That was 1866

Mr. Cadwalader. Did it amount to much? A. Well, quite little bars there

Q. Well, how was the river running then? A The river was low then, not much water, it was in the fall

Q. What was the condition of the water could you see to the bottom.

A. No sir, you could not see to the bottom it was somewhat discolored.

Q. Just a little discolored?

A. Yes sir, Oh, considerably it was roily water

Q. Did you notice any grey sand?

A. Not at that place particularly

Q. Did you notice any below?

A. I noticed grey sand below. When I have been down to the river near Beales Bar. I lived then at that time at Beales Bar and I noticed grey sand on the sides of the river

Q. Have you ever had any occasion to notice the movement of the sand on the bottom of the river? A. I could not see the movement of it, the water was too roily for that

Q. But I say have you had any occasion to notice the movement of the sand? A. I have seen where the sand moved on the side and worked back against the bars.

Q. Where would that sand come from — from what stratum of the water? A. From the bottom. I have noticed in the water a very light sand composed of mica, I should judge, that would kind of float, very light stuff, then.

Q. You have seen that on the surface have you?

A. I have seen that near the surface

Q. What is the nature of the downward flow there in the Winter say in any part of those cañons in any part of the high water stages?

A Well, the flow is pretty rapid in high water, running very quick.

Q. With what force?

A. Well, I should judge the water would travel there, probably eight miles an hour.

Q. How deep and how wide would it be in the high water stages? A. Well in the season 1861-2 the water raised there at Beales Bar about sixty feet. The river at the surface probably was three or four hundred feet wide and I do not know but more in places, all of four hundred feet wide and more in places, some places narrower, the banks would come in.

Q With what velocity would it be running? A. Well, it appeared to me as though it went at the rate of eight miles an hour or such a matter, of course I did not measure it. It went with pretty good velocity.

Q. Well what have you noticed up say opposite the town of Auburn in Placer County in regard to the rises?

A. I never was up there when there was a heavy freshet, up to the town of Auburn.

Q. How far is Beals Bar from opposite the town of Auburn on the river?

A. We used to call it sixteen

miles, that is what we would get pay for when we went to Court.

Q. As you go up to the mountains or hills grow higher?

A. Yes sir

Q. And the banks steeper?

A. Yes sir, the banks are steeper and higher if you go into the mountains

Q How high are the hills at Auburn, abreast of Auburn?

A. From the bed of the river?

Q. Yes sir A. Well I should judge they were one thousand feet nearly, eight hundred or a thousand feet.

Q They grow steeper and higher as you go up toward Gold Run?

A. Well apparently; I have been up on the Railroad over the mountains and passed through Gold Run and rounding Cape Horn you can look down on the American River, the North Fork and it looks a pretty long distance there

I do not know how far, probably two or three thousand feet

Q. Cape Horn is between here and Gold Run? A. Yes sir

Q. That is the American river you see from the Railroad at Cape Horn? A. Yes sir, it looks like a small stream, like a ribbon

Q. How far is that below Gold Run? A. Well, I could not tell you how far

Q. Have you ever tried to keep dams in the North Fork at any place?

A. The North Fork people had some dams in there that went out. Mr. Reamer built one after purchasing the North Fork ditch and I helped to put it in

Q. How did you put it in, just describe? A. We dug down and we flumed the river, in the ~~at~~ first ~~that~~ place we took the water in a flume eighteen feet wide and took the water passed the sides of the dam and stripped off the tailings and the natural formation, the old formation down to the bed rock, and then commenced with logs on the bottom and bolted them with iron pins to the bed-rock

Q. What kind of logs?

A. Pine logs, all the way from two feet and a half through to one foot logs, some more, some nearly three feet, and put them across eight feet apart and notched them and shouldered them, and filled in with rock between

Q. What became of that dam?

A. Well, I think that dam would have been there now if they had not put on attachments to it that pulled it away here a year or two ago. I think it was a good dam. The top of it went off. I think the bottom of it is there now. I helped to put every log in the bottom.

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Q. What took the top of it

away? A. Well, I understood that Mr Birdsall set a trap there to catch gold and did not put the bottom to the bed rock and of course it washed under and pulled the top off and the water got hold of it and took it down, that is my idea of it.

Mr. Catlin. To catch what?

A. To catch gold

Mr. Cadwalader. Do you know of any other dam being put in there and washed away either in whole or in part by the current of the river?

A. Yes sir. There were dams above that washed away.

Q. Well how were they

A. Well the one at Tamaroux Bar, that was a very thin affair in my judgment, it was merely rocks tumbled into the river to raise the water in the ditch in the North Fork

Q. How large were the rocks that were thrown in?

A. Probably they would weigh

a ton or such a matter, a ton and a half or two tons, may be smaller.

Q. Was that the Shin affair that you speak of?

A They put rocks in and they built an apron on the upper side and hinges and then sunk it and loaded it with rocks to protect it and in the winter of 1861 after every thing was taken away, ditch and all, they built a dam lower down of brush.

Q. Was that all washed away?

A. Yes sir

Q. Rocks and all?

A. Well, it smoothed down and when the ditch went out they put a dam in three quarters of a mile below.

Q. I want to know if the force of the water moved those immense rocks?

A I do not know whether it did or not. They never turned the river there so they

2444 built the dam lower down

and shortened the ditch on account of the ditch running so near the water and to the flume, that it had injured the ditch

Q. What kind of material have you seen being moved down that stream by the force of these big freshets?

A. Oh! all ~~sorts~~ sizes of cobble stones and gravel, and sand

Q. What kind of sand?

A. What I have noticed, grey sand composed of granite quality clean and so forth

Q. Do you know what the tailings of hydraulic mines are composed of?

A. Well, that from the mine I worked was grey sand, cobbles and so forth.

Q. Well I am asking you whether you know of what material the debris of a hydraulic mine is composed of

Mr. Catlin. What hydraulic mine do you speak of

Mr. Cadwalader. Take the

Gold Run Mine

A. I do not know of the material in the Gold Run mine because I was never in the pit or in the works

Q. You could not see the materials?. A. I could see the top of the banks and some points that were not washed away and it looked a greyish lightish color and it looked to me like the top points were red dirt.

Q. I ask you if the debris of that mine were lodged in the American river, what would it be composed of?

A. Well, of gravel and Earth

Q. What else

Mr. Catlin. Do you know anything about it

A. I say I do not know only what I could see from the car window

Mr. Wilson. It was too far off?

A. Yes sir, it was too far off I never went down into the mine

Q. It was two or three miles off from the car window?

Mr. Cadwalader No sir. I am asking this witness whether he recognized the material in that mine passing by

The Court. If he can tell, let him tell it

A. Well, I could not do it

Mr. Cadwalader. Could not you see the banks?

A. Not near enough to distinguish

Q. Could not you see the color of them? A. What I saw in color showed to me as though they were of a lightish nature.

Q. Had not you ever seen such banks before? A. I have seen similar banks

Q. Now I will ask you, don't you know what constitutes the debris of such a mine?

A. I could not tell you because I was not near enough. It might be a different formation from the debris near Beales Bar

Q. I will put it this way. Supposing it were composed of

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Cobble stone, pipe clay and grey sand and was deposited in the American River opposite Gold Run where would it go to during the freshets?

A. I suppose the lighter particles would go down the stream

Q. What do you mean by the lighter particles?

A. The sand and the lighter gravel

Q. Well, How would it be in regard to the big cobbles?

A. I can not tell you whether they would move down that far or not

Q. What is the grade of the American River? A I could not tell

Q. Well have you put in dams there and run ditches?

A. I could give you the grade of the North Fork ditch.

Q. How does it correspond with the grade of the river.

A. Well, it is lighter, considerably lighter, because we want to get up as high as we can into the country, to get to a given point below

Q. How would the grade of the river where you put in this dam opposite Auburn, compare with the grade of the river down at Beals' Bar?

A. I do not think there is very much difference in the grade, to judge from appearances

Q. Don't the grade get steeper as you go up stream?

A. Well I could not say as to that; some places it is a little steeper than it is at others, that is at Beals Bar it seems to be about a general grade from there to Auburn, some places steeper than others of course

Q. What do you have to say about the grade of the river facilitating the movement of gray sand and small gravel down stream?

A. I should say the steeper

the grade the quicker the movement would be

Q. What do you say about the smoothness of the grade?

A. Of course, if it was an even grade, it would run off faster than it would if it was not an even grade

Q. Now you say since 1862 the river has acquired an even grade? A. Yes sir, I have noticed that

Mr Catlin At what point does he state that to be the case?

Mr Cadwalader. All along the river, that as far as you know the river is it not?

Q. You say you know the river from Auburn down to Folsom? A. Yes sir

Q. And you have been there on the river or in the immediate vacinity of it since 1853?

A. Yes sir

Q. That would be 28 years. What do you have to say about the mining debris put in streams, coming down by heavy freshets?

A. I should judge that every freshet carried more or less sand and gravel down the stream from the fact that I notice every year that after a freshet the river appears to have more gravel in it than it did previous to the freshet?

Q. Where? A. In the vicinity of Beals' Bar, where I lived most of the time and along up the river

Q. You noticed the deposits coming further and further down, is that what you say?

A. I noticed that the deposits are heavier at Folsom now than they were ten years ago.

Q. How in regard to the material being coarser

A. About the same thing that it was ten years ago

Q. What effect would the current which washes away these dams, and these big rocks that you speak of, have on the movements on this heavy species of sand, what velocity, if any would send it down stream

A. I could not tell you

Q. Well about? A. Current that would break these dams and move these big rocks at what velocity would it send that coarser species of sand down?

A. Oh, well I have no idea

Q. Well about? A. I could not tell you

Q. Well, would it go as fast as the current?

A. I should think not; no sir, I should think water would go faster than the sand, the sand being heavier

Q. How much faster?

A. Of course it could not possibly go with the water or as fast

Q. How much faster?

A Maybe ten times faster maybe more

Q. Then if the water runs 10 miles an hour that would go at the rate of one.

Objected to as leading and argumentative

A. I would not pretend to tell, because I know nothing about it. I am no engineer, and I never examined it

Q. It would come, wouldn't it — it would naturally move? A. Yes sir

Q. I will ask you if you were engaged in putting in one of these dams opposite Auburn?

A. Yes sir, I spoke of that once. I helped to put in a dam there

Q. Were you in the water directly? A. Yes sir, I helped to put the dam in that we connected the flume with, a small dam to drain the river. I was in the water and helped to put it in, in fact I was in most of the time

Q. What I want to get at is this: Could you feel a distinct current of sand moving on the bottom?

A. Yes sir, there was a kind of sand, a gray sand, I could feel it under my feet moving. I was something like that {No. 7} maybe coarser, but something like that, similar to that sand. It was more like that sand {No 8}

Mr Hart It was more like No. 8? A. Yes sir that was up near Auburn

Mr Cadwalader Do you know where the tailings of the Gold Run Mine, the defendant in this case, emptied? A. I do not.

Q. What are the manifestations of the current of this river have you seen

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besides washing away the dams, and washing away the rocks, and moving this sand down the river?

A. I do not know how to answer that question

Q. Have you seen bridges carried away?

A. Oh, yes, I saw a bridge carried away, at the time the Mormon Island bridge went off; I saw that go, and I saw the Folsom Bridge go. The river was so high, that was in 1861 and '62

Q. Did you see it move mills? A. I saw the Granite Mills come down. Of course if the water raised high enough in the river, and met with an obstruction of that kind, it would be apt to take it along with it — it did at that time. The river raised very rapidly at that time when it took the Mormon Island Bridge

Q. How long does the north fork remain ~~dry~~ high?

A. Well in 1862 that remained up longer than I ever saw it since or before that; it stood up pretty near one thing for several hours, and then gradually went down. It comes up very quick. I think it must have risen in one night there about forty or fifty feet.

Q. Now, have you seen it coming down?

A. Then it will go down about a certain stage very quick

Q. You say you have seen it rise 40 or 50 feet in one night? A. Yes sir.

Q. Now describe the appearance of that body of water coming down during one of those immense rises?

A. Well, sir it is very muddy. It has the appearance of washing. It brings down trees, stumps, and every

Ex✓6

thing else in its way on the river. At that time it brought down houses lumber, mining machinery trees two hundred feet long some of them. The river was filled with brush, and debris of all kinds, apparently washed from the mountains and cañons in the mountains, and the sides of the mountains, and the water was very red, yellowish red color, very muddy. That was in 1861-2

Q. Well, how was it now after the next great freshet?

A. The next great freshet was I believe in 1867-68

Q. How much did it raise? A. I think the water was not as high as it was in 1861-62, by four or five feet. Then it brought down a great deal of stuff, but not so much as it did in 1861-62 The river in 1861-62 was flooded with drift wood and trees for miles, they were hours passing the junction of the north and south fork

Q Was anything cabapble of resisting such a flood as that of 1862 or of 1867 and 1868? A. Well I have an idea that a brush dam would resist it if it was not too high, from the fact that the north fork company put in, after the flood of 1861-2, a brush dam, and that was on a reef of ledge and run across the river. That dam stood two or three years. If it had been put in as it should be put in, it would have stood longer, and I have seen a part of that dam, the relics of it, trees in 1872, when we put the dam in for Reamer, that point being high, they did not get it covered with tailings so much. I could see some trees that were put in there then, pretty well worn out from the action of the gravel

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Q- Do you know the instrument used in Hydraulic mining called a "monitor" or a "little giant?"

A- I do yes.

Q- When did that come into use?

A- I could not tell you when it came into use. I think about 1870 or 1871 along there.

Q- Not before?

A- I do not know. I never saw any of them until 1871 or 1872. 1872 I think was the first one that I saw. I had read of them a year or two previous to that.

Q- What kind of a flood was there last winter?

A- Well, it was a very fair flood. It was not as high as it was in 1868.

Q- What kind of stuff did it ~~run~~ bring down?

A- Not as much drift stuff as formally.

Q- What kind of material?

2 - D.

#

A- Rather lighter; pretty roily, very ~~roily~~ ~~very~~ roily, apparently washed from the hills, and moving sand from the banks of the river intermixed with the water. I did not go down to the edge of the water last year but five or six years ago when there was a little rise in the river I went down.

Q- When does the permanent rising of the North Fork occur and how long does it remain?

A- The heavy rise commences directly after a heavy storm and lasts for several days. After several days of storm there is a rise and a permanent rise will commence after there has been fall enough of rain to saturate the ground; and the rise in the river will last until May when it begins to go down again although at times it will be higher than at others.

Q- I am speaking of the water that comes from the melting of the snows?

A- It will keep rising long in the Spring. We~~ll~~ will have rises in the winter; for instance, in ~~may be over~~ about a month from now. Sometimes it commences in December and sometimes in February and then it will come down until the Spring freshets come, but with the rains in the mountains and the melting of the snows it will rise some again and it will continue up until the snows are melted in the mountains and then it gradually subsides until in July or August. When it gets to its lowest stage in August or may be in September. That is about the lowest.

Q- How much water will there be running, say in the month of May in the North Fork. What will be the ~~state~~ stage of the water, the number of inches say opposite Auburn?

A- In height?

Q- About what will be the stage

A- I suppose it will be from twenty to fifty times as much as there is now in the river.

Q- It will be what you call a big river?

A- It will be quite a stream then ~~f~~ by the first of May.

Q- You have not stated yet that you had charge of a ditch on this north fork have you?

A- No sir I have not. I stated that I was on a ditch there. I was agent on a ditch there.

Q- What ditch was it;

A- It was a ditch known as the North fork ditch.

Q- Where did that take the water from?

A- It took the water from the North fork of the American river near Auburn. Below the Junction of the middle fork.

Q- What was your relation to that ditch?

A- I was ditch agent, water agent. I was selling the water

Q Whereabouts?

A At different places I have sold water all the way from opposite Folsom to Rattle Snake Bar and two miles at Manhattan Bar. At first I was stationed at Beal's Bar and then my lines were extended to Big Gulch now known as Ashland and also at Carrollton and I sold water at Carrollton for about 10 years and then I was off of the ditch. that was from 1865 or 1866 to 1871. I went back on the ditch and was on the ditch then three years longer and my beat then extended from Carrollton to the upper end of Manhattan bar which is about two miles above Rattle Snake

Q What became of that ditch?

A The ditch now is owned by Mr. Birdsell of this city.

Q Did not that ditch run along the bank?

A That run along side – it takes the water out of the North fork and runs along the bank and it gradually rises

6 - D.

until it gets on the higher land below Beals' Bar.

Q. How many dams did that ditch put in the bed of the North Fork.

A. The first dam was at Tamerro Bar and the next was at a bar called "Little Rattle Snake" I think below and then they put in another at a bar which is above "Little Rattle Snake". Mr. Reamer put in one; that is four; and Mr. Birdsell has put in the 5th one

Q. What has become of all these ~~bars~~ dams except the 5th one?

A. I think the fourth one, the bottom of it is in yet but it is covered with water and the fifth one is a good dam and it stands now.

Q. Where are numbers one, two and three?

A. Numbers one, two, and three are obliterated. I suppose No. 1. was a cheap affair and rocks thrown in. Probably those rocks are there now; But the ditch washed out and they moved the dam below.

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7-D.

Q What has become of "No. 2"?

A That was a brush dam.

Q What has become of that

A That is gone. There may be some of it left there now but if there is it is covered with water and tailings.

Q What has become of No. 3"?

A That was swept out entirely.

~~Q What has become of No. 3"?~~

Q What kind of a dam was that?

A It was made of logs.

Q Just describe to the court how that was made?

A I did not see it made I was not there when that was made.

Q You know all about it?

A It was made of logs; I do not know whether they went to the bottom of that or not; I could not testify; I was not there.

Q. Tell us what you know.

A. I think they did not go to the bottom. That is my opinion. They dug down to probably the original bed of the river; they laid logs in there and put them across and then filled it up with rocks.

Q. What kind of rocks?

A. Rocks from the slate-stone there; that is the formation.

Q. Of what size?

A. As big as two or three men could role in there

Q. About the size of that desk

A. Yes smallar and some as large as that

Q. ~~Wha~~ Was that what you would call a permanent dam

A. They thought it was permanent.

Q. What is that?

A. They thought so I presume.

Q. You are speaking of the logs? What was the size of the sills?

A. The logs probably were about 18 inches through I should jidge from what I saw in the dam. There was a hole through the dam and when Mr. Weimer took the ditch he filled it up.

Q- How were they bolted together

A- They were bolted with wooden and iron bolts. Pins and iron bolts.

Q- How wide was that dam?

A- Across the river?

Q- Yes.

A- I think it must have been about 350 feet across the river there.

Q- At what place was it located

A- It was located, I do not know of any particular name of the location of the dam — the name of the dam but it was right near Auburn, west of Auburn.

Q- How much did that dam cost?

A- I have no idea how much it cost.

Q- How long did it remain there

A- I was off of the ditch at that time. That was between 1865 and 1870. It remained there two or three years.

Q- What eventually become of it?

A- It washed out a part of it. A hole washed through it and Mr. Werner bought the ditch of the company and repaired the ditch and the ditch was washed out for a mile or two.

Q- What became of these enormous stones that were rolled in there?

A- I do not know. I expect they are there now; I do not know anything about that. I expect they settled in the water.

Q- Are there any signs of that dam there?

A- Not now, no sir.

Q- When was this washed away?

A- I do not know when the company lost that dam. I do not remember what year. I do not remember whether it was 1867 or 1868.

~~A-~~ Q- When would the strain be on a dam of that kind?

A- It would come in the time

of the highest freshets of ~~wat~~ water.

Q. Would it be possible to hold anything in the shape of a cobblestone as large as my head in the bed of one of those streams when it had force enough to break away one of those dams?

A. I think so from the fact that in early times before there was any mining down here in the country when parties turned a river we would find the bed of the river filled with cobble stones and gravel imbedded there and they had compact and solid. I do not know why they would not remain so now part of them.

Q. Do I understand you to say that the force of the water that would break one of these dams would not bring down cobble-stones as large as my head?

A. Well they might role

along until they got where the sand would work around them and they would become solidified apparently

Q. Would not it all have gone down that was put in the bed of the river, Would not it all come down in the shape of debris, mining debris but at different velocities?

A. It would all naturally work down. The lighter particles would naturally work down with the current.

Q. They would come down with currents

A. Such sand as you see before you in that big bottle

A. That would naturally come down I should judge being lighter it would come with the water.

Q What become of the material that you in early times used ~~at~~ to throw into the river from your Rockers and sluices?

A It is washed down, I know that miners would dump their ~~slickens~~ tailings at Beals' Bar

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and at Doten's Bar and at Carrollton and the dump was immediately on the river. In the summer time they would pile up large piles of tailings at the tails of the sluice-boxes and when the river raised in the winter it would wash this pile down and level it down and it would leave them a better dumping place.

Q. It would send it down stream?

A. Of course it went down stream, yes.

Q. What became of the stuff you hydrauliced in 1872?

A. We dumped it into the river.

Q. What became of it?

A. I expect it is there in the river.

Q. Above or below it?

A. Below it of course.

Q. How far below

A. That I could not say.

Q- All the stuff that you hydraulic'ed into the river has disappeared has it?

A- Yes it has disappeared from my view.

Q- Have you ever heard the noise made by the movement of heavy stones in the water?

A- I have

Q- Made by their cracking together?

A- I did in 1861 and '2 at that heavy freshet.

Q- Now describe that.

A- I was standing at a point near Beals' Bar where the ledges are broken on each side of the river. The water was very high and the men ~~had~~ at work under those rocks crevicing around and taking the earth out. When the water rose up there it would start these rocks and we could hear them grinding against one another going down in the bottom of the river — going down from the side of the bank into the river. We could hear them strike against each other and they made a kind of dead sound.

Q. How much water was moving them?

A. The river was full — there was fifty or sixty feet of water in the river above low water mark.

Q. What was it? the water of the North Fork? A. Yes

Q. What about the movement of such materials over your dams?

A. I do not think such materials, that is large rock like that would go over the dam?

Q. Did ~~do~~ not the dams grade up or grade down to nothing?

A. Yes they filled up. After we built a dam it filled up with gravel and sediment — that was so when Reamer built his dam on the North ~~side~~ Fork.

16-D.

Mr. Catlin - It fills it up above the dam.

A Yes.

Mr. Cadwalader - It runs out ~~its~~ what is called nothing

A It fills up until it seeks its level. It takes a regular grade.

Q It then affords no obstruction to the movement of this stuff down stream

A Then the lighter particles would go over the dams.

Q They would go over all the time would they not?

A They would only go over when ~~there~~ was a high freshet of ~~ot~~ water. In low water they would not go over

Q Sand would go over?

A Fine sand like that (Indicates) would I suppose.

Q This is what you call fine sand

A Yes.

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Q. Sand will move whenever there is a current in the American river, summer and winter will it not?

A. It will move in time with the current.

Q. How in regard to the material called slickens?

A. That is the material that I regard as being almost in solution in the water and when the water becomes still it will settle. This stuff (referring to the bottle containing sediment from Dole's place "No. 11" — that probably settled from water that was very quiet.

Q. That is slickens?

A. Yes, I have seen it a redder color than that.

Mr. Cadwalader — The slickens has more or less clay in it?

A. Yes more or less clay

Q. Where does the clay come from?

A. Well it is soil I expect.

The slickens that settles around in the reservoirs on Beals' Bar — I will tell you what I know about slickens. We had reservoirs at Beals' Bar to hold our night water and the water would go into those reservoirs in a muddy state, it would be roily and it would settle and form a sediment similar to that only of a redder color — more of a reddy cast. That is a little too light in color. And that would settle there and in the summer time it would crack open into small cracks or flakes.

Q. What is the color of the slickens that comes down the north fork?

A. The color is a little darker than that and more redd.

Q. How did the slickens that came down the middle fork differ from the slickens that came down the North fork.

A- The water that runs over the George town devide - I noticed that two years ago this winter when I was up there, being interested in a mine there. Two years ago this winter I noticed the water that came down from this seam mining. There was a great many gravel mines on that side and there are gravel mines on the other side bit the water that came from this seam mining was more of a yellow Ochre color than that considerably

Q- How about the slickens that came down the North Fork?

A- That would come down the north fork.

Mr Catlin - That would come down the North fork by the middle fork.

A- Yes, by the middle fork.

Mr. Cadwalader — You say those slickens were more yellow than those which came down the North fork proper?

A Yes; that is I could see a difference in the color of the water from the water that was in the North fork, before it intermixed with the waters of the North fork.

Q In other words the North fork discharges —

Mr. Catlin — Let him tell it.

A I could not say. I have not been to the North fork I want you to understand, near enough to observe the color of the water in the North fork, above the middle fork since about 1866 when I passed there. I noticed the water then at that time and it did not look yelow. It was more clear. The water in the North Fork seemed to be clearer at that time when I passed there.. I do not know whether there was any mining up there then. I did not go up to see.

Mr. Catlin — Clearer than what?

A. Clearer than the water that I saw last winter going in the middle fork from the Georgetown devide. I was at the Spanish Dry diggings and at American Canyon and no water got into the middle fork from those ~~seam~~ mines — from those seam mines that were worked around Spanish Dry Diggings. There was considerable water from the Georgetown ditch and there there was a kind of a decomposed porphory a little quartz porphory and they would sluice it out there and it was of a yellowish nature. It would color the water very yellow and down near Folsom there is one mine that is worked at the present day. It is about half a mile above Folsom. The deep soil there is red and the water that comes from that mine when it runs there— they do not wash every day but whenever they do it makes the water red at the bridge at Folsom. It ~~colors~~ colors the water red

Mr. Hart— How far is that from Folsom?

A Well it is above the old Seminary building, about half a mile from town.

Mr. Cadwalader— You have described a class of slickens that came from the neighborhood of Folsom, that you say is nearly blood red?

A- Yes nearly red.

Mr. Catlin— Do you say that it is blood red?

A I do not say that it is blood reds, but very ~~red~~ red. It is like the red soil at Folsom.

23-D.

Mr. Cadwalader — You have described another class of slickens that come out of the middle fork.

A That is more of a yellow ochre color. It comes from the George town devide from the south side of the middle fork.

Q Tha comes from what is called the George town devide, ~~A~~ That embraces the country between the middle fork and the south fork.

A Yes it is from the gravel mines there

Q — You are familiar and have worked some mines up there?

A Yes I started a mine up there two years ago

Mr. Catlin — Up where?

A Up at Greenwood valley, at a place called Railroad hill between Greenwood Valley and Spanish Dry Diggings.

24-D.

Mr. Catlin — None of that material went into the north fork above the mouth of the middle fork?

A — No sir.

Mr. Cadwalader — You have described a third class of slickens that comes down the North Fork.

A — Above the mouth of the middle fork I could not tell you the color. Standing on the bridge and looking down — in early times say about 1866 the water was somewhat discolored but not very muddy at that time. Since then I have never been up to see how it looked on the North fork. I never had occasion to go up there.

Q — As you come down the river do you notice below the junction of the middle fork the slickens of that fork, the two colors, the ochre and

2482

the gray — the ochre and the rather grayish ~~col~~ the slickens that came from the American river that settled in our reservoirs is about the same color. Sometimes at some seasons the color of the slickens will be different from that of other seasons. I attribute that to the different ~~colore~~ colored soil in which the mining is being conducted at the time.

Q Do you know the nature of the stuff that is hydrauliced from the Iowa Hill devide into the North Fork and the middle fork.

A No sir I do not. I have never been up at Iowa hill but I have been to Michigan Bluffs

Q Well at Michigan Bluffs how does it compare with the stuff that you have been hydraulicing on the other side of the river at

Greenwood.?

A. It is gravel at Michigan bluffs ~~and~~ on the other side where I was it was seam mining. You have to blast the rock and ~~at~~ you find the gold in seams in its natural state. It never has been moved. It is in decomposed quartz seams.

Q. I am talking about Michigan bluffs?

A. Michigan Bluffs is a gravel formation.

Q. Is there no such gravel formation on the other divide?

A. On the other divide further back it is of a gravelly nature. There is a place called Jones' Hills that belongs to the George town water Company there or the California water companies' ditch — They afterwards sold it and that was composed of gravel but the diggings at the Spanish Dry Diggings and Greenwood are not gravel mines. They are what we call "seam mines". They blast the rock there and get the gold from it and wash it off and it breaks up very easily.

A. Recess was here taken until two Oclock P. M.

In the Superior Court of the State of California in and for the County of Sacramento

The People of the State
of California
vs.
The Gold Run Ditch
and Mining Company

Afternoon Session
Tuesday
Nov. 29th/81

Transcript of Testimony
Volume

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Winfield J Davis
Official Reporter

Afternoon Session

Direct examination of W. W. Sheldon resumed

Mr. Cadwalader I believe I stopped, asking you about what is called pipe clay. Do you know where that comes from?

A. Well, I have seen pipe clay up at Nevada, but I never have seen it on the American river. In early times at Nevada City I saw it.

Q. Have you seen clay?

A. Not among those mines except a very small amount.

Q. I mean in the stream?

A. No.

Q. Where any of that sediment is? A. I have seen that sediment, a little darker colored but some of that sediment, when the water settled in the reservoirs

2486 Q. Now in regard to motion

How does the slickens travel as compared with the sand?

A. Well, I should think the slickens would travel with the water. The roily substance may not travel equally as fast as the water but very nearly I should judge and a great deal faster than sand

Q. Then you say it travels fast

A. Yes, it is so very fine

Q. Now what do describe the slickens as composed of?

A Well, it is a fine substance

Q. Of what materials is it?

A. There is a substance that I would call slickens. (No. 5) It is a fine substance that settles in the water when the water stands quiet. It is very fine, as fine as chalk

Q. That stuff you say has the velocity of the water?

A. I should think so or very nearly. If that goes along with the water you would not notice but that that went as fast as the water

Q. You spoke of your dam being filled up. What time was that?

A. It filled up in one season after it was finished or completed

Q. How high was it?

A. The dam as twenty two feet I think above the tailings in the river. The dam was altogether about forty feet high. It was raised about twenty-two feet above the level of the debris or tailings in the river, and it set the water back probably over a quarter of a mile, from quarter to half a mile

Q. That you say filled up in one season?

A. That filled up the next season it appeared to be full

Q. What did it fill up with?

A. It filled up with fine sand and fine gravel. Where I could see on the edge it appeared to be that, On the edge the next summer. ~~The~~ water would stand would

Stand there kind of quiet and Still

Q. What was that filled up with at the bottom

A. I could not tell you. You could not see you know. The moment the gate was closed the dam was filled with water

Q. But you could see the gravel on top? A. After a while it filled full ~~and then water was gradually subsiding~~ so the fine gravel ran over the dam.

Q. You could see the fine gravel going over the dam?

A. You could see it Extending up to the top of the dam

Q. What Extent, what area, did that gravel cover?

A. The dam at that place was I think three hundred and some odd feet long and Extended across the river. Of course the river would be about Equal width as far back as the water would flow which would be about a third of a mile I should think, may be more

Q. Was there gravel all over that surface? A. Yes, mud and gravel. I never saw any big cobble stones there

Q. You never took borings in that, did you?

A. No, I had no interest to do so

Q. You do not know of course where that stuff came from do you? A. No, I do not

Q. What kind of gravel was it? A. Fine quartz gravel and granite; a kind of bluish slate gravel that is all worn smooth, you know, that apparently came out of the banks of the river at some place above.

Q. You did not put that dam in until 1873 did you?

A. One dam was put in there in 1870. It stood through one winter, through the winter of 1870-71. In the winter of

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1872-3 it went out. That Summer we put a new dam in below, and we were about two years at that. I am speaking now of the first dam that Reamer put in. The other dam I never was up to see how much mud, gravel and sand there was had filled into the dam. This was the dam that went off in the winter of 1871-2 or 1872-3

Mr Catlin. What winter?

A. I think 1871-2

Mr Cadwalader. You built it you say in 1870?

A. Yes. It stood one winter, that is, we put it in in 1870 and it stood during the winter of 1870-1. Then in the early freshet of 1871-2 it went out

Q. How long was that filling up? A. I saw it in the fall before it went out, that would be the fall of 1872. It appeared to be full then

Q. How high was that dam?

A. It was about the top of the old dam that the company put in. Reamer built a crib about twelve feet high in the shape of a box and put it on top and filled that box with rocks; a different principle I guess than any dam was ever built in the world; it was a new theory of his. That was about twelve feet high, twelve or fourteen feet high

Q. What kind of rock?

A. He filled it with rock such as men could wheel on in a wheelbarrow.

Q. Where did the rock come from? A. It came out of the banks on the opposite side of the river from the dam.

Q. Do you know what a rocky bed river is?

A. We call the bed of all rivers here rocky. There used to be rocky, cobble bottoms

Q. Where the rivers ran through a rocky country? A. Yes

Q. That makes a rocky river bed? A. Yes. In early times the bottom of the rivers were of a rocky nature; Cobble Stones from the size of your fist up to a size a man could lift, The deeper you go down. Sometimes you could find pretty large boulders there that would take two men or three to turn over

Q. That is the way the bars are generally constructed?

A. Yes.

Mr. Catlin The bed of the river

A. That is the way the bed of the river is constructed

Mr Cadwalader I asked you if that is the way the bars are generally constructed. Answer that question

A. So far as my Experience has taught me these bars in rivers are formed by heavier rock being lodged from some cause or other in the river

That forms a riffle and other finer matter mix with those rocks and become solid, and they stay there. There would be holes above and sometimes below

Q. How are they when you get down towards the bed-rock?

A. The deeper you get generally the larger the rock is in the river

Q. As you go down how much of a space do they occupy when you get pretty close to the bed rock

A There would be as much rock as there is dirt or more; twice as much. Probably you take those rocks out ~~where~~ and they would fill up the hole that you excavate two thirds with rock again

Q. That is the way the original bars on the river were formed? A. Yes.

Mr. Catlin Do you say the bars or the bed of the river

A. The bed of the river, in working the river where these bars or riffles are formed across the river

Mr. Cadwalader How is it on the bars now?

A. Those bars seem to be composed of a finer material, finer cobble, gravel and sand. Those bars are composed of cobble and sand and fine gravel

Q. But as you got towards the bottom of the bars?

A. Well, sometimes you find a streak where the cobble are layer toward the bottom. That generally carries the gold. You have to go to the bottom to find the gold on these bars, that form on the immediate banks of the river near the water. The gravel with these stones are more compact and solid

Q. Is there any sand at all on the original bars close to the river? A. Oh yes, there is sand mixed with the cobble. I never saw a bar on the river but there was more or less sand since I came into the country

Q. Do you recognize the difference between a cobble bar and a sand bar?

A. A cobble bar is generally mixed sand with cobble

Q. Would you call these cobble bars? A. I would call such bars as Main Bar, Mississippi Bar — where they are mining now — and Texas Hill principally cobble and sand with some decomposed vegetable matter intermixed with that.

Q. Do you know when placer mining ceased, or substantially ceased on the North Fork?

A. Well, there is what you call placer mining there now

Q. But substantially when did it cease? A It has been gradually diminishing since about 1865 or 1866 or along there; Every year less

Q. Was it not substantially over in 1862? A Oh no.

Q. Was it not substantially

Over in 1863? A. No. I used more water and the miners used more water on the Main Bar opposite Folsom, after 1862, and did more mining than they did previous to that on that flat

Q. That was down out of the Cañon was it not?

A. That was opposite Folsom

Q. But I am speaking of the Cañon? A. Above?

Q. Yes A. There is no placer mining in the Cañon.

Q. I mean the bars in the Cañon from Folsom up to opposite Auburn or the mouth of the Middle Fork?

A. I think there has more mining been down on those bars after 1861-2 that there was before it. There is Manhattan Bar which is a bar that lies pretty low towards the river. That is above Rattlesnake Bar. That is a very long wide bar. Chinamen worked there, worked it all over

I sold them a good deal of water myself to work that bar off. They would overhaul the bar, leave the rock and wash the sand and gravel into the river

Q. At any time before(?) 1860 were these bars substantially abandoned by the white miners?

A. Not in every instance, there were some places where white miners were working but mostly they were abandoned by white miners

Q. Most generally?

A. Yes. The Chinamen got into them

Q. When did the Chinamen get in there? A. They got in there about 1863 and 1864 and along there

Q. When did the white miners substantially abandon~~ed~~ those bars, when were they considered worked out?

A. What bars do you have reference to?

Q. I mean the bars in the

river? A. Those low bars ~~are~~ down near the water. Then there are bars like Maine and Mississippi Bars which are higher, above the low bars next to the water. Those high bars are not abandoned at present by the white miners

Q. I am asking about the bars commencing at Buckeye?

A. I do not know where Buckeye is

Q. And running down to Rattlesnake A. I do not know where Buckeye is. If you will locate it by any particular point perhaps I will recognize it

Q. Buckeye is abreast of Auburn?

A. That I do not know anything about

Mr. Catlin. Did you ever hear of it before? A. No.

Mr. Cadwalader. Well, I was there in 1849 and I saw Levi Parsons there working in the bank

Mr. Catlin. We do not care

particularly for your reminiscences

Mr. Cadwalader. What was the first bar below Auburn?

A. I could not tell you. I am not familiar with the names of the bars up near Auburn. Along down on the line of the ditch I am familiar

Q. About what time were those bars worked out?

A. That I could not tell you.

Q. It was long before 1860 was it not?

Mr. Catlin. Name the bars

Mr. Cadwalader. Take Horse Shoe, Smiths, Rattlesnake and Whisky bars. x

A. Horse Shoe bar has been worked since 1860; and since 1870; part of it

Q. By Chinamen?

A. By white men. A man by the name of John N. Campbell has a claim there now

Q. Are you able to say when those bars were abandoned by

2500

the white miners?

A. I could not tell you. There is Whiskey Bar on the opposite side above Horse Shoe. That was worked; I could not tell when that was abandoned by the white miners. That was done by drifting principally. The bottom was deep and wet

Q. All these bars were what was called the natural drift of the river? A. Yes, the natural drift. That is, the original bars

Mr. Catlin. What?

A. The natural drift of the river in early times before we knew anything about the country

Mr. Cadwalader. When did the Chinaman quit working these bars? A. I do not think they have quit at present

Q. But as a general thing?

A. There are not as many on these bars as there were five or six or eight years ago

Q But what is the proportion

of disease? A. There are not probably one quarter as many, probably not one tenth as many, Chinamen working them now as there was eight or ten or twelve years ago. That is, on the low bars

Q. I believe you have described the condition of the river from opposite Auburn down to Folsom, have you not?

A. Yes, I think so

Q. You described there being filled, did you not?

A. Yes. Filled up somewhat

Mr. Catlin. This is summing up the testimony and we object to it.

Mr. Cadwalader Is that the form in which the river is now to be found from opposite Auburn down to the mouth of the Cañon at Folsom

Mr. Catlin. We object to the question as leading

The Court. The witness can answer it

2502

A. The river now has become more of a general grade from the dam opposite Auburn to near where the granite mills used to stand, near Folsom

Q. How about the deep holes?

A. The deep holes are not as deep as they were, they have filled up

Q. What are they filled up with? A. They have filled with sand and gravel.

Q. And cobble? A. And cobbles

Q. And big rocks?

A. Nothing very large, I never saw anything large there

Q. How is from where the old granite mill stood down to the mouth of the Cañon at Folsom?

A. It is somewhat filled up

Q. About the same as it was above? A. No, not as much below near the bridge. Above the bridge there is a big pile of tailings that were deposited in there and have been there since the freshet of last winter. That goes in every year; and then when the water rises, it levels that pile down.

Q. It sweeps it away?

A. It levels it down. I do not know how far it goes down the stream, but I notice it levels it down. After the freshet goes down you can see that pile of tailings is lower than it was before. It stands up, running to a point where it comes out of the boxes or sluices

Q. With the exception of that does the river show about as it does above? A. Yes. That pile of tailings kind of dams the river up and it stands kind of level above there, because there is no mining above to empty into this cañon except this one claim.

Q. During the time you have been there what has been the average distance between high and low water mark in that Cañon or in that piece of river between Folsom and a point opposite Auburn?

A. I have seen the water rise in that river sixty feet. But the average would be about twenty-five to thirty feet probably

Q. What would be the average width, say at the twenty foot stage? A. Well probably from two hundred and fifty to three hundred feet.

Q. What would be the average current? A. Six or eight miles an hour

Q. What is the character of that water as to sedimentary matter in it? A. Sedimentary?

Q. Yes. Say at the twenty foot stage?

Mr. Catlin: I think he has already told us it was very muddy

Witness. Yes. It carries a good deal of mud at that time

The higher the water in a very heavy freshet, the muddier and dirtier the water appears.

Q. You have been used to measuring water have you not?

A. Yes

Q. How many inches of water would pass a given point in that channel, per second

A. I never measured water in that way. The only way I have measuring it to the miners through a guage box

Q. How many inches of water do you think would pass?

A. I could not tell you. I never figured on it. It would be a tremendous amount of water when the river was half full — twenty or twenty-five feet deep — running at the rate of eight miles an hour. I never estimated it. That belongs to the Engineers department I suppose

Q. You could not estimate it?

A. No. When the river gets down very low I can estimate very closely. I can then approximate the amount of water very closely. I have seen the North Fork of the American river when there was only twenty four hundred inches of water in the river

Q. I did not ask you about that?. A. No! but when it gets to be twenty five, or thirty feet deep and running at eight or nine miles an hour I could not tell you

Q. You have no idea how much it would be?. A No

Q. And you have no idea how much sedimentary matter that would carry?. A. No.

Q. But you have given in the width depth and velocity

A Yes,

Q ~~Did you ever try any of that water or see it tried for sedimentary matter during the high stages!?~~

~~A. I never did. I never took up a bucket of water and let it stand and settle to see how much would deposit in the bottom.~~

Q Did you ever try any of that water or see it tried for sedimentary matter during the high stages? A. I never did. I never took a bucket of water and let it set and settle to see how much would deposit on the bottom

Q Have you looked to see whether one third of it would be sediment? A. Oh no there would not be one third I presume I have taken up a bucket of water, roily water from the ditch

Q I am not talking about the ditch? A Well that ditch brought water from the river, there would not be at that time one eighth of an inch of sediment in the bottom of the bucket after sitting over night — that was when the water was not quite as roily as I have seen it other times

Q. But you are talking about roily I am talking about muddy water? A Well you might call this water muddy. I call this muddy water that we drink in Sacramento, it is not as clear as we get in Folsom

Q I asked about the muddiest water that you get coming down there through the freshets? A I never took up a bucket to test it, I do not know.

Q. I ask you about the muddiest that you have seen coming down at the lowest stages? A. I have seen it pretty muddy.

Q Well now how muddy

A. Too muddy for me to drink I could not tell you how much mud there would be.

Q. What was the appearance

A. It had a kind of yellow appearance

Q It looked slimy

A. I have seen it flow along and where it got into little

2voj eddys the top would be

pretty clear and it would settle down very quick, how quick would depend upon the nature of the soil it carries; some soils will settle a great deal quicker than others

Q I am talking about the appearance of it in the extreme low stage when it gets as you call it very muddy, what is the color of it?

A. A kind of a yellowish cast, yellower than any other.

Q Nearer white than any other? A. A yellow cast. That (number three) comes as near to a white as any that I have seen. In the winter time it looks red

Q But it is whiter than this, that is number three

Mr Catlin are you talking about the water or the sediment

Mr Cadwallader The water in the main American River; it is a little whiter than that you say? A. No sir I {170 think not. I say no, not whiter than that.

Q The witness said it was a little whiter? A. You said a little whiter, I said not quite so white, it was more of a yellowish Cast if I remember right

Q Does not that water get so thick in the summer that it almost staggers along

Mr Catlin objects as leading

A. No sir I do not understand what you mean by water Staggering

Mr Cadwallader, have you noticed the movement of this water that you describe as being very muddy just before it passes a riffle? A. I have seen it look a little sandy just before it passes a riffle, when it runs over a place where there is not much Current, just before it gets to the riffle I have seen the mud apparently lower than the surface of the water

Q But still in motion?

A. Still in motion

Q Have you seen it so that the motion was concentric

Mr Catlin, objects as leading

Mr Cadwallader Describe the motion of that water as it approached and passed these riffles,

The Court in your own language and not in the language of Counsel

A. I have seen the water just before it approached the riffles look like — I will give you an Idea now like some times you have seen very black smoke that is in that motion Illustrating, heavy smoke kind of whirling along in the water, The surface of that water would be pretty clear for an inch or such a matter and then you would see this mud kind of rolling ~~up in~~ between from some Cause I could not explain to you, why it did so but it seemed

2512

to get settled back here and then the under current seemed to take the sediment along with it.

Q. That would be in the main American River? A. Yes sir

Q. In which I believe you say that you never saw less than twenty four hundred inches flowing? A. I have seen twenty four hundred inches, I measured it myself.

Q. That you say was a very small amount? A. Yes sir a very low stage of water it was at that time: That is not in the main River that is in the South fork, on the north fork.

Q. This is on the main River? A. This is on the north fork; between the south and middle fork.

Q. Well now describe what you have seen issuing from the Canyon at Folsom in the water, the volume of water that you have seen coming down and what it contained?

A. The water is very much discolored there and particularly when Mr Lawson runs his sluices the water is very red.

Q That is not what I ask you I ask you to describe what you have seen coming out

A. Well I have seen muddy water coming out of the Canyon

Q. Well what else? A Well that is all.

Q. How high what volume?

A. Well I have seen it as low as three or four thousand inches of water

Q. Have you not seen ten times that amount?

A. Yes sir probably two hundred thousand times as much.

Q. You have seen it as high as that? A. I have seen it high enough to take that bridge that was there before this one away and take mills off.

Q. What did that water leave in the way of deposit below the bridge? A. A large amount of fine gravel below the bridge on the bar, Negro bar,

Q. How about the Cobble stones?

A. Right ~~on the river~~ immediately on the river not very many large Cobble stones but they had been mining all along there and it had levelled them down

Q. Havent you seen Cobble stones Come down by the million?

A. No sir not coming down the River.

Q. No, between the abutments of the bridge at Folsom?

A. No sir I never seen any Cobble stones passing through between the abutments of the bridge there,

Q. Have you not seen them lodged below? A. No sir I have seen the Cobble stones on the bars below but whether they Came down the river or Came from the mines directly opposite there I could not say

Q. Well you have seen Cobble Stones deposited on the bars

below of late years?
A. Yes sir they are there I do not Know where they Came from, I did not see them move
Q. They Came there in late years,
~~A~~. In the last five ~~y~~ or six years
Mr Catlin I object to that as leading ; A I do not Know when they Came there
Mr Cadwallader Well when did you first see them ?
A. I have seen them there ever since I have seen that part of the Country on the Folsum side. On the other side next to main bar, there was ~~a~~ originally deep water that was filled up from the mines on main flat on main bar
Q That is not exactly what I have asked you. What I want to get at is whether you have seen any deposits of Cobble stones made of late years by the American River below the bridge at Folsum?
2576 A. No sir I have not

not Cobble stones

Q What do you Call Cobble stones

A Such as they use for paving streets about that size and larger

Q. Have you seen heavy gravel coming down or that has Come down? A. I have seen gravel deposited on the banks of the river below the bridge, I did not see it Come down

Q Have you noticed during the year that you have been on that river opposite Auburn down to Folsom, deposits on the banks left by receeding water? A. Yes sir I have

Q- Commencing at high water mark and going down to low water mark?

A- No I never saw any at high water mark

Q- Well pretty near high water mark?

A- I have seen it 8 or 10 feet may be from low water mark

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Q- What kind of deposits were they?

A- It was fine gravel perhaps, a good deal of it quartz a little large than hen's eggs, and from that down.

Q- It came from the water did it not?

A- I expect it must come from the water.

Q- And comes from strata of water at least 10 feet above low water?

Mr Catlin- I object to that as leading

A- I do not know where it came from. I noticed that they were there.

Mr. Cadwalader- Q- Have you seen the receding waters leave deposits on the banks of sand of that description (No 7)?

A- Yes Sir, that and coarser, a little coarser than that

Q- Is that an unusual or a common phenomenon

A- Well that is a common phenomenon

Q- You find it along the twenty eight mile of banks?

Objected to as leading and ~~paragra~~ question withdrawn

Cross-examination of W. W. Sheldon

Mr. Catlin Q- Mr. Sheldon I will ask you to look at that map of the American water Company? Have you ever seen a copy of that map before?

A- Yes Sir I have seen one like that.

Q- How long have you been familiar with that map? A- Well I think 14 or 15 years, as late as that

Q- State whether the North Fork and the South Fork are correctly laid down

2579

upon that map as far as it is exhibited there according to your knowledge?

A- There is the North Fork canal

Q- I am inquiring about the North Fork of the river and the South Fork of the river; I will ask you about the canals afterwards.

A- Yes sir I see where they come in and I recognise the junction of the North and South Fork at Beals bar

Q- State whether the North Fork of the canal which you speak of is correctly delineated on that map?

A- Yes sir that is familiar to me every inch of it. I know all of that country as far down as the big reservoir here

Q- Are most of these mining bars that you spoke of in your direct examination noted on that map?

A- Here is Rattlesnake bar, Manhattan bar, Oakland, and Whisky bar on the other side; Horse shoe on the other side of the North Fork ditch, Doten's bar, ~~Dix~~ Texas hill, Carrolton, Rocks Springs, Beals bar, and the Union Hill Reservoir, I see that, and Russville they call it here, it is now called Ashland, all those places, and Maine bar.

Q- Well I will ask you whether the canal and reservoir~~s~~ and mining localities are correctly delineated on that map?

A- Yes sir they are.

Q- From your acquaintance with them?

A- Yes sir, they are correctly delineated here, according to the section lines I am pretty well posted about Beals bar there in regard to the section line and the county line between Placer and Sacramento

– it seems to be correct.

Q – Now how much of a mining locality or region was Rattlesnake bar during the time that that was worked by miners?

A – Rattlesnake bar originally stood down near the river, the town did and that was washed out, and the town was moved back Now I should judge that in the vicinity of Rattlesnake bar, a place called Oakland flat, that is, this side a little way between that and Millers orchard there must be at least three or four hundred acres washed off.

Q – What depth of soil?

A – The depth is from five feet to twenty feet, 24 or 25 feet may be

Q – Where was it washed to?

A – Washed into the river

Q – The North Fork of the American

A- The North Fork of the American.

Q- When was that mining principally done?

A- That was principally done previous to 1865 the most of it, some of it was done in 1870 along there. I sold water there to parties

Q- What kind of soil was that? A- The soil at Rattlesnake, a good deal of the surface of it was red, and underneath composed of cobblestone and earth

Q- Gravelly soil?

A- Gravelly soil, yes sir.

Q- How large a population of miners were there, there say in 1856, 57?

A- Well really at that time, I do not know that I was at Beals bar but I was up there a good many times and I think the town was composed of five or six hundred

2523

inhabitants, miners and other people

Q- State what your occupation was, was it mining exclusively?

A- Well mining pretty much, principally mining.

Q- State about the years ~~the~~ during which the principal part of that mining was done by white miners?

A- The principal part of the mining at Rattlesnake's bar was done from the fall of 1854 up to about 1865.

Q- State whether the bulk of it was prior to the big flood of 1861-2, or afterwards?

A- The bulk of it was prior to 1861, 2

Q- And it continued along up to 1865

A- Yes

Q- Was it abandoned at any time before it was exhausted?

A- No I don't think it is abandoned, yet

I think there is some few mines there now, one or two claims working there now.

Q- The red surface soil at that time, state to what extent it has been washed off? A- I should think to take Rattlesnake Bar from Oakland down as far as Millers place there was all of three hundred acres washed there, there may not be quite as much

Q- Now there is a bar above there, is there not on the river below the dam?

A- There is a place called Manhattan Bar.

Q- How much of a bar was that?

A- That was a very long bar, probably one third of a mile long nearly, and ran back four or five hundred feet.

Q- Was that an old bar on the river?

A- That was an old bar and lay very close to the river.

Q- What was the character of the soil in that bar?

A- It was composed of cobbles and sand.

Q- Gray sand?

A- Yes sir, like all of them, laying low in the river.

Q- About what depth was it mined there?

A- That was shallow not more than five or six feet deep.

Q- State whether that has all been mined off?

A- It has been pretty much all been mined over, by Chinese, a good deal of it. Whilst I sold water there in 1870, 71, and 72 along there I had ~~large~~ two or three large companies there mining.

Q- The water that these miners used was water

2526 purchased from the North

Fork ditch? A- Yes Sir

Q- You were an agent for selling water? A- Yes Sir I was an agent for the company, selling water to them.

Q- Where was that material washed to, right into the bed of the river?

A- Washed immediately into the river.

Q- Come on below Rattlesnake bar, which was the first important bar below that?

A- The next important bar below Rattlesnake bar was, Horse-shoe bar.

Q- State what the character of the soil on Horseshoe bar was?

A- The lower part lying next to the river was composed of sand and cobbles and the upper bar was composed of red soil and gravel, and gray sand intermixed, of a grayish nature and of a reddish cast.

Q- Describe generally how that mining was done, and the extent of it?

A- At Horseshoe there never were so extensive mines there as above. It was a narrow place, a small place. The lower bar that lies next to the river was cobbles and sand and gravel. Then the upper bench was more of a firm nature, more red soil

Q- During what years was that mined out, if at all

A- That was mined during the whole time from 1855 to 1870.

Q- Well how was it done, how was the water applied? By means of washing, sluices, hydraulic, or what?

A- By sluicing.

Q- Where there any hydraulicking?

2528

A- No sir, no pipe nor no hydraulic pressure brought to bear. They cut a race in and put a sluice in, and caved the banks.

Q- They put a race in and caved the banks down?

A- Yes sir, and washed the dirt off by a hose made from canvas, duck

Q- That you call piping?

A- That we call bank mining. We could not call that hydraulic mining because there is no pressure. That is the way the most of those upper bars were worked

Q- Is that what you call ground sluicing?

A- Yes sir ground sluicing

Q- Go on down the river to the next important bar?

A- The next was Hoten's Bar.

Q- Describe Hoten's bar during what year it was mined and the character of the soil and the extent of the mining population there?

A- A one time at Doten's Bar it was estimated, there was from eight hundred to a thousand people in 1855. They gradually diminished down but there was very extensive mines there for four or five years and the character of the soil was the same as Rattlesnake Bar.

Q- Red gravelly soil?

A- Yes sir.

Q- Did they tail into the river? A- Yes sir

Q- To what depth did they usually mine this ground?

A- Well that was mined all the way from the surface, two or three feet deep, to twenty or twenty five feet. The whole bar is washed away, all the flat is pretty much gone now

Q- How high was that bar above the water of the

21 30 river in ordinary summer

level? A- It must be 150 feet

Q- They had plenty of fall there? A- Plenty of fall.

Q- Have the tail sluices run their dirt into the river?

A- Yes Sir

Q- Go on down to the next bar below of any importance — or did you state about the area, how many acres, about?

A- Well I should think it had been washed, something over two or three hundred acres of ground. The next bar is a place called Carrolton that is Carrolton Flat, they have got it down Carrolton

Q- Carrolton is on which side of the river?

A- It is on the north side of the north fork.

Q- What bar is immediately opposite? A- It is opposite Condemned Bar, That is a low bar laying low next to the water.

Q- Now describe the character of the soil on what is called Carrolton?

A- Carrolton is of the same character as Doten's Bar and Rattlesnake.

Q- How high does it lie above the river?

A- About the same distance as Doten's Bar, about 125 or 150 feet I do not know but more.

Q- The height of Carrolton above the river?

A- That is what I say 150 feet, I do not know but more.

Q- Now then Condemned Bar, right on the opposite side of the river, was that a high or low bar?

A- That was a great deal lower than at Carrolton.

Q- State the character of the soil on that bar?

A- Next to the river was very heavy cobbles ~~an~~ and boulders, intermixed, the heaviest bar on the river, the heaviest cobblestones intermixed with sand. Back of that it partook of the nature of gravelly soil as it ran back into the hill

Q- State whether that is a large bar or a small one?

A- That was quite a bar, Probably they mined there fifty or sixty acres, maybe more in the vicinity, surface diggings.

Q- Right on Condemned Bar?

A- Yes sir.

Q- State whether you ever saw any sand on that bar when you first became acquainted with it, sandy deposits. A- I have seen sand there when I first became acquainted with Condemned Bar. The first time I crossed there was on the 3rd day of July, I remember, the day, 1853, I went to Horseshoe Bar and went up the river across to Long Bar

Q- State what you noticed there then?

A- I noticed a gravelly bar there, and more or less sand on Long Bar, on a place called Long Bar, that is opposite Doten's Bar, that is in 1853.

Q- State what the character of Long Bar was, that was on the opposite side of the river from Doten?

A- Yes sir.

Q- State what the soil and the character of it was?

A- The gravel there was very shallow, only a few feet deep, and it was a low bar laying pretty close to the river.

Q- What was the bar composed of?

A- Composed of cobbles, sand and gravel.

Q- Now go on down to the next important bar below Doten Bar on the north side of the North Fork?

A- The next important bar is Beal's bar, that is at the junction of the North and South Fork.

Q- State the height of that bar above the river where the mining is?

A- That bar was about 120 or 125 feet I should judge. That was lower than Carrolton. "

Q- About how high above the river? A- From the river about 125 feet I should judge.

Q- What kind of soil was that? A- That was a red and gravelly soil. Q- State how much of a town if any there was there, how many miners? A- We polled about 175 or 180 votes there in 1855.

Q- That does not indicate the number?

A- Probably there were 200 people there

Q- Two hundred miners?
A- Yes Sir.
Q- How long did they continue there and how many years were they mining at Bert's Bar? A- They gradually dwindled down until 1867 growing less every year.
Q- Was the weight of the population prior to 1861 or afterwards?
A- It was prior to 1861,'2
Q- State how deep they mined there, in that red soil? A- They mined about 20 feet some less and some a little more.
Q- About an average of 20 feet? A- Yes Sir.
Q- State whether or not their sluices tail the~~ir~~ material directly into the river? A- Everything directly into the river there; it was so close to the river it all went into the river.
Q- State the character

of the piles of tailings that you saw go in the river by this mining at the different places you have mentioned,- how large were they in the summer season?

A- The tailings were piled up there at the edge of the water, in the summer, and in the winter a flood would come and level them off

Q- How far down the river would those freshets carry those tail piles, you described them as being leveled off; what I want to get at is how far they removed those tailings down the river?

A- Well I could not tell you how far they removed those heavy tailings, such as would come out of sluices, such as cobbles, but I have seen tailings moved down to the Alabama Claims, and there was no mining between the Alabama Claim on the banks until you get to Beals, which would be about one mile.

Q- You found tailings?

A- I found tailings there

Q- When you were excavating in the Alabama Claim a mile below?

A- Yes Sir. The tailings were small, well as big as your fist, and smaller and etc.

Q- Do you know whether they came from Mormon Island or from Beals Bar?

A- I could not tell you, they were mining at Mormon Island and at Red Banks and Beal's Bar in 1855 and '56

Q- What area of ground had been washed at Beal's Bar? A- Well there has been probably over one hundred acres washed take it to Union Hill and all around there.

Q- What would come under the general description of Beal's bar diggins?

A- Yes I guess more than that.

Q- Now passing down the river on the north side, what was the next important bar that you came to?

A- The next we come to is called Slate Bar Hill.

Q- That brings you on to the main American river? A- Yes sir, right near the canyon, right near the canyon.

Q- Do you recollect when the mines of Slate Bar Hill was opened? A- I do, I remember the first head of water run there, I run it there myself. Q- How were they supplied with water. A- They were supplied from the North Fork Ditch. The branch of the North Fork conducted it to within 2000 or twenty five hundred feet of the hill, and carried it from there into the reservoir, on the hill in a flume.

Q. Carried in a flume?

A. Yes sir

Q. Now state the character of that mining how deep it is?

A. That is about the same depth all the way from a few feet deep on the surface on one side of the hill to 20 or 25 feet on the other. That is composed of red soil and gravel like all those upper benches on that side of the river

Q. Their tailings go into the American River?

A. Only what lodges on what we call Slate Bar

Q. That was a little bar under it called Slate Bar?

A. Yes sir, that is quite covered with tailings now. They have lodged there since 1861-62 because the water in 1862 was all over that bar

Q. A great many of those tailings have gone into the American River directly?

A. Yes sir, a great many run in, and there is a great quantity of them there now

Q. State the extent of that mining, & how much water was sold there, and how many miners were engaged there at Slate Bar Hill, and what would come in the Slate Bar District, not counting in Maine Bar now? A. Well at the time I sold water there, I had 4 or 5 companies working on that hill with three or four men in a company. They would buy water, and each company would pay about $5 a day for a head of water at that time. The heads were not very large

Q. How many years did that mining continue, could you tell the year when it commenced?

A. They commenced in the Summer of 1855 - the Spring of 1855

Q. And continued up to what time? A. It continued up to the present time. There is some mining there now when they have water

Q. The ditch has not been working? A. The ditch has not been working for about a year

Q. That is, the dam went out? A. Yes sir, there is one company or two of Portuguese working there now. They have a pretty good claim

Q. During the present season there has been no mining from the north fork ditch, has there? A. No sir

Q. Because there has been no water? A. No sir there has been no water

Q. That has stopped mining operations on that side of the river?

A. It stopped it all, from Auburn down

2542

Q. So that during the

past Summer there has been no mining debris o tailings thrown into the river from mining on the north side from the head of that ditch down to its terminus? A. No, sir, down to the terminus

Q. Now then, which is the next mining bar on the north side of the ~~bar~~ river below Slate Bar Hill?

A. The next is Maine Bar, that is opposite the town of Folsom

Q. How long is that bar up and down the river?

A Well I should judge maybe it is a half a mile maybe a little more

Q. Describe the character of that soil? A. That is a low bar, In these low red bars the soil is composed of cobble stones, earth, and sand

Q. What kind of sand?

A Gray sand

Q. Coarse gray sand?

A. Yes sir

Q. Well, how deep do they wash that down?

A. They washed that about 20 feet, and some parts of it 30 feet

Q. They washed it directly in the river? A. Yes sir, it all goes directly in the river

Q. And what is the depth of that bar back from the river to where you strike the red bluffs?

A. From a quarter to one-third of a mile I should judge

Q. State how much of that has been washed off into the American River?

A. Well, I should think three-fourths of it

Q. Is it washed clear to the bluff in some places?

A. No, sir not quite. ~~In~~ It is up within two or three ~~some places it is up~~

2744 hundred feet in one place,

but it is very nearly washed back to the bluff, washed back till they got out of fall, and I guess it did not pay them

Q. How long has that mining been going on, on Maine Bar? A. It has been going on since 1856

Q. When was the heft of that mining carried on, prior to the big flood or since?

A. Since the big flood, the heft of it, they used heavier heads of water. Previous to the flood they used light heads of water, and in fact it came very near being abandoned until I offered big inducements to the Portuguese to go in and they worked there, good diggings, and rich, and used from 150 to 250 inches of water

Q. To a sluice? A. Yes sir to the sluice head to each company one sluice

Q. Now go on down to the
2545 next principal bar, below

Maine Bar? A The next principal bar is Mississippi Bar

Q. Now describe that bar?

A. That is a very large bar

Q. How much does it front on the river, take the mining from the head of the bar down to the extreme end?

A Well I think a mile and a quarter, and I do not know but more. It is a long bar.

Q. Describe its character as compared with Maine Bar, the soil?

A. It is the same character of soil as that of Maine Bar

Q. About what elevation above the bed of the river?

A That lays very low.

Q. About how high?

A I should think about 50 or 60 feet

Q. Is that flanked back by the bluffs?

A. By the bluffs? Yes sir

Q. How far is it say in the center of the bar from the river back to where the red bluff rises? A. I should think a half a mile; all of that, the widest place. On each end of the bar it is narrower, but in the widest place, in the center, it is all of a half a mile from the river back to the bluff

Q. At the upper end of the bar, and at the lower end of the bar, the high bluffs come in?

A. Yes it makes a bend around and forms a bow

Q. State when mining first commenced on that bar? A. Mining commenced there in 1855.

Q. They mined with water from the ditch? A Yes sir with water from the north fork ditch. I know it commenced at that time - 1855

Q. State whether there was a large number of miners there, and if so how many?

A. There was a large number of miners, and a large quantity of water sold there. I would sell them water amounting to nearly $4,000 a month on that bar from that ditch

Q. Well about how many miners would you think were employed there, and how many sluices?

A. Well I have no idea. I was down there a great many times but I never took particular notice, I know there were a great many carpenters working there

Q. Did You have the agency for selling water there?

A. No sir.

Q. There was another agent?

A. There was another agent - two agents their - Mr Winegar and Marsac, I think at one time there were 2 men there

Q. Why did they have 2 men - two agents?

A. Because there was so much work that one could not attend to it

Q. State when the bulk of that mining was done, whether before the big flood of 1861-2, or after?

A. I think there has been more gravel washed from the bars there since 1862 than before. They were using very large heads of water. Before that they used small heads of water.

Q State how far out into the river their tail piles would go? A They ran out 100 or 150 feet some of them, and kept adding on a box when they filled out, and ran them out as far as they can run for grade

Q Well what has become of those tail piles when freshets come? A. It has been the case that there was not water enough to move them and level them down, when it comes a high freshet time, to smooth them down

2024 9

9

Q. Some Winters the current is not strong enough to level them down? A. No. it did not run over the top of them, and it left them there, and the Portuguese that were mining their would find considerable fault because the river did not rise high enough to level them down. Last Winter it leveled them down some

2550

Q. Are there any bars below Mississippi Bar?

A. There is a bar called Sailor Bar. I never was in that bar

Q. During the time that the North Fork Canal was selling water to the miners, commencing at Manhattan Bar and thence down to Mississippi Bar and Sailor Bar, which was say in the years 1855 and 1856, how many Water agents were employed by them in disposing of water to the miners of that section, about?

A. I think there were about seventeen men employed, and about ten or twelve of them were Water agents

Q. How many men?

A. I think about seventeen men at one time, ditch tenders and water agents

Q. Ten or twelve of them were water agents?

A. Yes

255 Q. And the others, ditch tenders?

A. Yes

Q. To take care of the ditch?

A. To look after the ditch

Q. The water agents were exclusively employed in disposing of the water to the miners were they? A. Yes.

Q. And if I understand you, subsequent to 1862-3, the miners used larger heads of water?

A. Yes. Than they did previous to 1862-3

Q. Then I will ask you whether ~~that~~ did not relieve the Company of the necessity of employing so many agents?

A. Yes. At first the heads that we sold on that ditch were very small. I know at one place I had eighteen companies on one hill, which took my time

Q. Eighteen Companies on one Hill? A Eighteen Companies on Union Hill Mining and they did not any of them use over six inches of water to the Company

Q. Where is Union Hill?

A. It is just above Beales

Q. Between Beales and Dotens

A. Between Beales and Rock Springs. Do you remember the reservoir which was back of Johnsons?

Q. Yes. It is also between Beales and Dotens. What sort of a mining camp was Union Hill? A. That was included in what was called Beales Bar. It was included and all called Beales Bar District

Q. How many men would there be in a company?

A. Two or three

Q. Where did they tail?

A. They tailed into the river

Q. Was ~~that~~ this red soil or sandy soil?

A. It was the red soil

Q. ~~Now~~ State whether or not you know the character of the mining at Negro Hill. First, state where Negro Hill is

A. Negro Hill is between the

2 √ T3

North and South Forks opposite Mormon ~~s~~ Island

Q. On the South side of the South Fork?

A. On the North side of the South Fork

Q. State how extensive a mining locality that was?

A. That was very extensive. That is they have worked off a great deal of ground there, I should judge. May be four or five hundred acres; I do not know but more than that. It was a very large camp and a great many miners there.

Q. How much of a town was there there?

A. There was quite a town; there might have been a thousand or fifteen hundred people there at one time

Q. Any stores? A. Stores, Saloons, and all kinds of business carried on that would be carried on in a mining place

Q. About how high above the
2004 river was that flat where the

mining was done?

A. That must have been about two hundred feet above the river I should think.

Q. Did they tail direct into the river? A. They tailed into the river, both into the South and North Fork

Q. How deep did the excavate their mines? A. The mines there were from six to twenty or twenty-five feet deep. In some places the bed rock lay near the surface

Q. State whether you know the place called Massachusetts Flat near there?

A. There was a place about a mile above Negro Hill called Massachusetts Flat, lying on the South side of the North Fork of the American river

Q. I wish you take this map and point out these places to the Judge

Mr. Cadwalader They are all marked in the map are they Not? 2055

Mr Catlin: Not all of them

Witness. Massachusetts Flat is not down on the map

Q. I will ask you what ditch supplies Massachusetts Flat and Negro Hill with water

A. It was called the Fraser and Jennings Ditch, running from the South Fork of the American River. I can locate these mines from the plat very near

Q. You need not mark anything on the map. You can describe the places. How far above the junction of the two rivers was that Flat?

A. About a mile and a quarter or a mile and a half

Q. And on the south side of the North Fork? A. Yes.

Q. How much of a mining camp was that?

A. That was a small camp

Q. What kind of soil did they mine off there?

A. It was the same nature of the soil of Negro Hill and

Beales Bar

Q. Where did this Fraser and Jennings Ditch get its water?

A. It took it out of the South Fork at the Natoma Co's dam, about, may be one and a half or two miles above Salmon Falls

Q. On the other side of the River? A. They took it on the opposite side from where the Natoma Company took their water. They took it out on the north side of the South Fork

Q State what was the character of the mining that was done on Texas Hill, as to the soil. What kind of soil was that?

A. That was cobble and sandy soil

Q. The same as Maine Bar

Mr. Cadwalader. That is this side of Folsom.

A. Below Folsom

Mr. Catlin Are you acquainted with the Prairie City Diggings well enough to enable you to state the extent and character of them? A. I have been over them considerably. They were principally surface mines

Q. Did you ever sell water there?

A. No I never did

Q. Did you ever live there?

A. I never did

Q. Have you ever been there except casually?

A. No sir I have not - That is all

Q. What time was it when this Mining at Negro Hill was done? A. That was done in 1853-4 and so along up. I think there is some little mining done there now but the principal part of it was done in 1853. 4. 5. & 6 and along there

Q. Prior to 1860? A. Yes.

Q. Up to what time?

A. Up to the present time; they are mining there now. The most people were there previous to the flood of 1860, but there are some miners there yet - Massachusetts Flat do you want to know about that

2558

Q. Yes. A. There has been some pretty heavy mining done at Massachusetts Flat by Portuguese and other Companies since 1860 I think

Q. When did they tail?

A. They tailed into the North Fork.

Q. Where did they get their water? A. From the Jennings Ditch

Q. You say heavy mining. How heavy? How big a head of water did they use? A. Well, they would not call it heavy in the mountains. But the miners down there when they use one hundred & fifty inches or such a matter or two hundred, call it a pretty good head of water, that is not what they call a big head of water in the mountains

Q. I am not inquiring about that. I want to know the extent of the mining there?

A. Well the banks were from fifteen to twenty-five or thirty feet high

Q. What? A. The gravel banks that they washed off into the river

Q. They washed those down to ~~the~~ depth of twenty-five or thirty feet? A. Yes

Q. What's the extent of that mining claim which you referred to on your direct examination

A. That hydraulic claim, ~~at~~ what I call James Point above Rattlesnake?

Q. No. Just above Folsom

A. Oh, Lawsons

Q. How deep is the bank there

A. There is a mining bank there of twenty-five to thirty feet deep, and I think they have washed off ten or twelve acres of that hill to that depth

Q. Do they tail right into the river? A. Yes,

Q. How big a pile of tailings do they make in the river in the summer season?

A. He makes a pretty good pile of tailings. It lies up there now.

Q. A pretty good pile does not give us any idea. Just describe it, How high above the water is it?

A. I should judge the tailings were fifteen feet now above the water and slanting back on the side hill

Q. How long has he been doing that? A. He has been mining there for nine or ten years.

Q. How much of a head of water does he use ordinarily when he is washing?

A. I never saw it measured but I should judge form looking at the water as it passes through the boxes there must be from one hundred and fifty to two hundred inches of water

Q. What affect has that amount of water on that pile of tailings? A. It knocks them down.

Q. It levels them off?

A. It levels them off.

Q. Does it carry them down the river to any extent?

2V61

A. I do not know. I could not tell you; I expect they go down the river

Q. From the appearance of them do not they lower?

A. They are leveled down so it seems to be all smooth surface.

Q. Does it Extend down more than one hundred yards? A. I do not know; I could not tell you whether it Extends down more than one hundred yards. That would take it down to the bridge. They are just above the bridge; nearly to the bridge I should think; Not quite to the bridge. I guess at these things of course. I have not measured them and do not know

Q. Which flood brought down the most debris in the way of sand slicken or gravel: The flood of 62 or the subsequent floods?

A I think the flood in 62.

Q. Did not 62 bring down largely more than any flood has brought down since?

A There was quite a flood of debris brought down 67-8. but in 62 we noticed it more particularly, because when the river went down we noticed that the river was filling up with tailings.

Q When did sluice mining first commence? You have stated you ~~have~~ first commenced with rockers and then with long toms, then with sluices, then with hydraulics. Now when did the sluicing era first commence

A. I think the first sluice was made in Nevada City.

Q I mean on this River?

A. Oh on this River I do not know exactly. I stated WF3 that when it commenced was in the winter of 50 – 51, That was in the winter of 50 Spring of 51. in Nevada City. But on the river the first Sluicing that I knew anything about was after the North fork ditch brought the water in, That was in the Spring of 55, The fall of 54 or Spring of 55.

Q. Was not the Natoma Ditch brought in, in 53

A. Oh. Yes.

Q. I am speaking of both sides of the River? A Oh Yes on this side.

Q. The water of the Natoma ditch Came in in 53

A. ~~I could not~~ Yes.

Q. And the North fork ditch in 55? A. Yes.

Q. At the time those ditches Came in Sluice mining Commenced

A. Yes. In that vacinity

Q. Have you seen any mining by piping? or how do they wash down those banks?

2564 A. I never was in the mountains.

All the piping I ever saw was what I did myself one time when I started a claim above rattle snake bar.

Q. Never mind that. Do not some of those Claims use pipes? A. Yes

Q And force the water against the banks? A Yes.

Q. And cave them down

A. That is the way we did. We had about 75 or 80 feet pressure and had a little giant and forced the water against the bank.

Q. Where was that?

A At James Point above Rattle Snake bar

Q. How far above Rattle Snake bar? A About a mile, at a point on the River.

Mr Cadwallader That was in 72.?

A. Yes

Mr Catlin I will ask you this question; Whether or not the bars on the American river, the North fork and the south fork, so far as you are intimately, acquainted. are not usually formed of sand and cobble, while the upper or higher bars are formed of red dirt?

A. Yes

Q. Is not that the general case

A. That is the general case so far as my observation teaches me

Q All the way up? A. Yes

Q. You said that when you first came there the bed of the river was filled with cobble stone and boulders about the size of your head. Were not they embedded in a bed of sand? were not they fixed

A. Well I would not call it sand. It seemed to be good solid substantial earth and gravel — seemed to be where it had not been disturbed — with some sand intermixed so that it became solid and firm, packed. It seemed to be so fixed that the action of the water would not move it except disturbed by a pick —

Mr Cadwallader Some clay In that? A. Yes, more or less sand milled in.

Mr Catlin' The bottom then was a gravelley sandy bed?

A. Yes

Q Filled up with boulders?

A. Yes

Q And some very large ones?

A. Yes. That has been my experience in the rivers of the country here, what little experience I have had in river mining

Q When did you first come on the river there?

A. In the spring of 53 I came to Mormon Island

Q. State whether you saw sand or sandy deposits on the River in various places at that time

A. I do not remember much about it, I think there was sand. I noticed there was sand on long bar in 53, when I crossed long bar in 53 I noticed there was some sand there.

2567

Q. You were not up and down

the river much then were you? A. No I never was up and down the south fork I remained right there at Red Bank and Mormon Island.

Q. This place where you saw it on Long bar was the usual Crossing place?

A. Yes. The Crossing where we Crossed to go to Horse shoe bar,

Q. I will ask you what your Judgement is in regard to the possibility of maintaining dams on the north fork of the American River? you have had some experience in building dams and I want to ask you whether a dam Cannot be built there which will resist the floods? A. Yes. It is my Idea that a dam can be built there which will resist the floods. I think that the dam which we put in would have stayed there if attended to, Such dams require a little attention; The tops must be Kept from wearing out; They get worn down by gravel coming over, and of course holes will get in them and the water will get hold of them and tear them out, But if the dams are Kept well covered I believe they will stand there and resist any freshet which comes down the River

Q. Do you Know the dam built by the Natoma Water and mining Company in the year ~~56~~ 66 in the main American River above the prison? A. Yes. I Know where the dam is, I was not there when they built it. I Know the dam above the prison, built above low water mark

Q. You Know about when that was built? A. Know I do not; I do not Know when that was built.

Q. About when was it built

A. Some time from 66 to 68

2069

Q. Has that stood there

ever since? A. I think it has. I think the dam is there I can see a riffle there.

Q. That is a stone dam is it not? A. Yes

Mr Cadwallader Locked in bed rock? A It is a cemented dam they told me.

Q. Locked in bed rock?

A. It is built of cut stone, Split stone.

Mr Catlin - Do you know how long it has been since the dam of the Natoma water And mining Company has been injured by a flood?

A. I do not; I do not remember. I know they have a dam in there yet, I know it stands, for is there now,

Q. Has not the Natoma dam stood there for some twenty years? A. Yes, They have had no troubee there that I know of.

Mr Cadwallader That is on a different stream.

Mr Catlin The south fork

Mr Cadwallader That rises how high.

Mr Catlin You said the North fork was much larger than the south fork. I want to ask you how much larger the North fork is than the South fork, take it right through Summer and winter?

A It Carries twice the amount of water.

Q. You think it is twice as large? A. Yes

Q. You, are well acquainted with the fork, Are you as well acquainted with the South fork? A. I have seen the time when in the South fork at the bridge at Mormon Island there was not 100 inches of water running

Q. Was not all of the water then Carried in the Natoma Canal?

A. Yes

Q. Then that is no fair way of Judging? A. No. But they Carried about seventeen hundred inches of water.

Q. Do you know anything

about the capacity of the South fork above the Natoma Company dam?

A. I have understood that that ditch carried about seventeen hundred inches of water.

Q. You did not hear my question, I asked you if you knew anything about the capacity of the South fork above the Natoma dam?

A. No. I never was above that dam.

Q Then you do not know that the north fork is twice as large as the south fork do you

A. Only from the reason that the middle fork and north fork come together, and I should judge that the middle fork was about the size of the South fork.

Q. Why should you judge so if you do not know what the size of south fork is

A. I know what the size of the South fork is from the junction up to above

2072

Mormon Island

Q. But ever since 53 has not the water at a low stage been principally taken out of that river by the Natoma ~~Company~~ Canal?

A There was about sixteen hundred or seventeen hundred inches taken out,

Q. And you say one hundred or one hundred and fifty inches left?

A. Yes

Q. And you say you have seen the American River down to twenty five hundred inches

A. That was in a very low stage of water.

Mr Cadwallader Only one occasion in twenty years?

A. Yes. I said at one time I measured the water and there was twenty four hundred inches of water; and that was all it would measure.

Mr Callin. When was that

A. That was in 72

2473 Q. Was a large portion of

The water of that River taken out by the Natoma Canal at that the time you made this measurement of the water in the American River when it was down to twenty five hundred inches? was not a large portion of the south fork then taken out by the Natoma Canal, and carried in it?

A. No. This point where I measured it was above the South fork

Q. It was on the north fork?

A. Yes, near horse shoe bar

Q. I supposed you were talking about measuring the American River? A. No. The North fork of the American River at Horse Shoe bar, at a place called Kehoe and Companys Claim, where they had a flume in

Q. Was there any water taken out of the North fork then

A. Yes, The north fork ditch was full then.

Q. Suppose that had been added, how much would there have been then in the

River? A. About thirty four hundred inches maybe.

Q. Suppose you had measured the south fork of the American River above the Natoma dam near Salmon Falls how much would it have had? Can you tell? A. Judging from the water in the Natoma Company's ditch and what was passing under the bridge there, they had about 1800 inches of water

Q. Was not the Frazier and Jennings ditch taking out water then too?

A. I do not know whether they were taking water out at that time or not. But I saw this water passing under the bridge

——— 11 ———

Re direct Examination of W. W. Sheldon

Mr Cadwallader What is the population of negro hill at this time? A. I do not think there are over 25 or 30 peopee living there now,

Q. Including men women and children? A Yes and Chinese. There may be more.

Q. What business are they engaged in there? A most of them are mining; All the Chinese that are living there are mining

Q. Can you find five persons living in negro hill?

A. White peopee?

Q. Yes?

A. Yes.

Q. Can you find six?

A. Yes, I can name you over.

Q. I mean working men?

A That have ranches there and vineyards.

Q. I am not talking about the men that are raising fruit and vines.

QA You asked about the population and they are reconed in the population

Q. You were talking about miners and said they were principally engaged in mining there? A Well the Chinese are principally engaged in mining there.

Q. And the other persons are principally engaged in raising fruit and vines? A. Yes

Q. That Country is now nearly all vineyards, is it ~~now~~ not? A. ~~Yes~~ It is nearly washed off. There are three or four or five vineyards there, small vineyards

Q There has been no mining there since ~~[illegible]~~ 58 has there? A. Oh yes. There is some mining there now.

Q Just a little? A. Oh no. There has been considerable mining there since 60

Q. Has it been all sluice mining? A. All sluice mining. At one time they drifted

Some, but since then that ground has been washed off by slucing.

Q. In ~~slucing~~ sluce mining ~~not~~ where do you leave the heavy material? A. The rocks that will not run through the ~~water~~ boxes they throw out and leave in the pit. All that go through they wash through and they go on the dump below.

Q. So in sluce mining nothing goes in except the sand and the water? A. No, And the stone that will run through

Q. You have what are called sluce forks have you not? A not now days. We use more water.

Q. But in those times

A. In early times — in 53 — they used sluce forks. That was when we used 5 — six and 7 inches of water

Q. What is the principal business of the people now at Rattle snake bar?

2078

There are very few people there

Q. How many ? A It is several years since I have been up there. I guess it must be five years since I have been up there

Q. How many persons were there then ? A There were not over six or eight white people there; I do not know how many Chinamen

Q- What were they using that country there for then?

A- Some of them were farming and some of them were raising a little fruit and grazing

Q- And to vineyards?

A- Yes sir, not right on Rattlesnake. There is one vineyard this side and an orchard there, a nice orchard Mr Kelly has a farm there and raises grain and keeps stock.

Q- What is the water of the North Fork used for?

A- When we have water in the ditch and the farmers want it, we sell it to them for irrigating their orchards, and vineyards and also sell it to the miners for mining

Q- What is the population now of—

Mr. Catlin (Int'y) objects as immaterial.

2080 Mr. Cadwalader— Q- You

say that in 1856 was about the time that mining was extensively carried on at Rattlesnake? A- Yes sir

Q- Are you not running that down a little too far?

A- No sir in 1855 and 6 there were a great many people at Rattlesnake Bar engaged in mining, that was the principal business of the people there.

Q- Did not mining there substantially cease long before 1860?

A- Oh, no.

Q- Was not all the mining over?

Objected to as leading.

The Court- Ask him when the mining was over.?

Mr. Cadwalader- You see what I am trying to prove by you.

A- There has been more or less mining done on that river, from 1855 up to 1873 to my knowledge with the exception of 2 years, one year that I was in Oregon and one in the East that I could not say

Q- That is not what I ask you, I ask you now about Rattlesnake Bar you said to Mr. Catlin that the bulk of mining was over in 1862?

A- The population was a great deal heavier there before 1862, than since 1862

Q- How many sluice heads were running there say in 1860? A- I could not tell you.

Q- Was there one ~~at all~~ in 1860? A- One? I guess there was a great deal more than that.

Q- Was there two?

A- Yes sir probably half a dozen or a dozen.

Q- As late as 1860?

A- Yes sir

Q- How was it in 1861?

A- There were as many in 1861 probably, it had hardly commenced to diminish ~~them~~ much at that time

Q- How much water were they using?

A- I did not sell water I could not tell you at that time. I sold water there in 1870, 71, and '72.

Q- How often were you in Rattlesnake in 1859? '60, 61, and 62?

A- I was up there probably three or four months, sometimes to see my friends.

Q- They were using sluices then were they? A- Yes sir.

Q- Were not these bars covered up during ~~there~~ winter with water?
At Rattlesnake Bar

A- Rattlesnake's Bar itself was not covered up. It was high and dry out of the water

Q- Well I mean the mining part of the bar?

2583

A- I never saw any mining at Rattlesnake bar down near the river.

Q- How far back from the river was it?

A- Well these bars commenced on the banks of the river and would extend back may be a quarter of a mile, there were two benches there, one bench would go back three or four hundred feet and then come another one.

Q. Would any of the stones get into the river? A- Yes.

Q. From the sluices? A. Yes sir.

Q. How about the cobbles?

A. All that would run through with a head of water would go into the river, the cobbles and heaviest part of it are thrown out along the line

Q. Of the three hundred acres that have been mined on Rattlesnake, how much of that was mined before 1862?

A. I cannot tell you

Q. Now you say Manhattan Bar was a bar covered with cobbles and sand?

A. That was very shallow bar, a long low bar

Q. What part of the year was that worked? A. I can only state on my own knowledge that I sold water there to two or three Chinese companies in 1870, in the winter of 1870-1-2 along for a few years.

Q. Well two years and a half

Q. That was not what I asked you. I asked you what season of the year that bar was worked? A. Winter and summer time

Q. Winter and summer?

A. Yes sir

Q. What is the population of the bar now? A. There is no population there, there is only one man there a man by the name of Kelly lives there, he has a farm

Wss

Q. How long has he been there

farming? A. I could not tell you. I have known him since 1890

Mr. Catlin. Farming on Manhattan Bar?

A. He lives right at the end of Manhattan Bar he lives on the hill but his place is down there.

Mr. Cadwalader What is he using Manhattan Bar for?

A. He dont use it. His farm is back on the hill

Q. You say bar was made of cobbles and sand?

A. Yes sir

Q. When was that bar abandoned by white men?

A. There was one man by the name of John M. Campbell was mining there summer before last

Q One man? A Yes sir Do you want to know when it was abandoned by white men? he is a white man and he is living there now

Q. Was there never more than

One white man on it? A Yes.

Q. When was it abandoned as a mining camp by the white miners? A. I cannot tell you when the bulk of the people went from there

Q. How early? A Oh! probably since 1865, the most of them. I sold water there in 1870 to two or three different companies in 1870 1871, 1872.

Q. What was the population of that bar in 1861?

A. I cannot tell you the population of that bar.

Q Well about?

A. I have no idea

Q. What has it been used for? A. They have got some nice little orchards there now and vineyards.

Q. Well, what else?

A. Mining

Q. Well, what else, is there farming around there?

A. No sir

Q. Tree raising?

A Yes sir some orchards and a few vines planted on the side hills and around there and one man by the name of Smith has got a very nice cherry orchard planted on a sand bar and it is doing very well

Q. Dotens Bar? when did the population leave that

A. I think the principal part of the population left there about 1860. The height of that only lasted about three years I think, but there has been more or less mining there up to 1863 and 1864 and along there

Q. What with sluices?

A. They are still mining there yet some, when they have water

Q. With sluices?

A. Yes sir

Q. Well, how about Carrolton & Condemned Bar, when were they abandoned by white miners? A There is no miner that I know of at Carrollton at all

2058

Q. How at Condemned Bar?

A. I do not know. They are pretty well worked out at those places. All those places on the river are pretty nearly exhausted

Q. Was not nine tenths of all the work done at Carrolton and Condemned Bar done before 1862? A. I think not, nine tenths

Q. Well say seven eighths then

A. I think one half of it or more than one half was done in those five years previous to 1861-2

Q. Now, Beales Bar when was that abandoned by the miners? A. That was abandoned I can tell you exactly, there have been one or two claims worked there within the last two or three years and with the exception of that there has been no mining done there since 1864-5 to speak of

Q. Was not 19/20 of all the

mining done there, a previous to 1858 — of all the mining that was done was not 19/20 done previous to 1858?

A. No sir

Q. Well what proportion?

A. About one half or such a matter

Q. What proportion was done before the flood of 1861-2?

A. It would come to very near one half done previous to that, a little over probably previous to 1862, up to 1861.

Q. Well what was the largest population of miners at any one time? A. Since I have had any knowledge of it I think the largest of population of miners there was in the summer, the years of 1855 and 1856

Q. You said there was about two hundred miners there?

A. Yes sir there was about two hundred people, the population was about two hundred, I know we polled about one hundred and Seventy odd voters.

Q. You told Mr. Catlin there were two hundred miners there. Now that was 1856 and 1857. To what number had they dwindled?

A. I do not remember if I said two hundred miners. If I did I made a mistake. I meant the population. At that time in 1855 and 1856 there was about two hundred

Q. That would make forty or fifty miners?

A. No sir, they were mostly miners.

Q. That is the way population is estimated?

A. No sir, there were very few women there at that time and very few children. I have a daughter who was the first child born on the bar

Q. How low down had that population got to be by the summer of 1861

A. Well probably about forty or fifty

Q. What were they engaged in?

A. The most of them were mining

Q. What is the population now?

A. There are about five Chinamen and five white men

Q. Is that turned into an orchard? A. Yes sir, I have a vineyard there. I sold the place myself and I set out a vineyard and they are working it

Q. Do you use the old mining water? A. When the ditch is in repair

Q. Now the next place is Slate Bar Hill. When was the great bulk of the mining done on that? A. Well, there has been a good deal of mining done on that. There has not been much depreciation in the mines there I believe since that was started with the exception of the first year.

Ev92 There were miners on the hill

the first year or two the Mines were started in 1850 and along there than there has been since, but they have never used any more water than they do at the present time

Q The debris from the mines did not escape into the river at all did it?

Objected to as leading

A. Oh yes sir there is one ravine that the Sluices run down and dump their tailings into the river just beyond about the Folsom bridge; a large pile of tailings is there now

Q. Now when was nine tenths of the mining done there on Slate Bar Hill — before what time?

A. Well I should think previous to 1876-7-8 may be, there have been some Portuguese Mining Companies there and doing a great deal of mining there now, particularly when the have water

Q. You were asked about a

dam at the prison — is that dam on the site of an old one? A. I do not know I suppose not. There is a dam, the foundation is built up to low water mark above the prison built by the Natoma Ditch Company

Q You spoke about a dam there that gave way? at least I so understood you?

A. No sir, not at the prison.

Q. Now you spoke about Mame Bar. That is below the bridge is it not? A Yes.

Q. That received a great deal of debris from above did it not? A No sir

Q Never got any of it?

A. No sir

Q. Why didn't it?

A. It was too high

Q. You spoke about the dam of Chris. Lawson. How near to the bridge was that?

A. He must have dumped his tailings into the river three or four hundred feet, maybe more above the bridge

Q. Does he put them into the channel of the river? A. Yessir they run into the channel of the river there is quite a point of tailings sticking up from the river up on the bank

Q. What kind of stuff does he put in? A Cobbles, sand gravel, red earth and so forth

Q. What is the color of the whole? A. They are red

Q. They are red? A Yessir

Q. How much has he put in there? A. Oh, I do not know how much — I need not tell you

Q. Where has that all gone to? A. It has gone probably down the river and spread out over the bed of the river

Q. Has it gone below the bridge? A. I do not know whether it has gone below the bridge or not but it is levelled down when the high water came.

2795

Q. Is it not true that if it had not gone below the bridge, it would have stopped up? A. No, I think that Cañon is capable of holding a good deal of earth and debris.

Q. Well, is not that true is it not necessarily true that all that stuff must either have gone below the bridge or have stopped up

Objected to as leading and as argumentative

Q. How much has he put in there? A. I think myself that this stuff goes down the river, there is no question about that

Q. What proportion of it does he put in? A. I could not tell you.

Q. Well about? A. I never noticed his mine much I never was to his mine three times in my life

Q. What is the amount of the water there during the flood seasons, say take the flood of

2596

last ~~season~~ winter running against that pile, the flood running through that Cañon? ~~When~~ A. When the water is very high it runs pretty rapid and high

Q How rapid? A. It ran eight or ten miles an hour I should judge.

Q. How wide and how deep would it be? A. Three hundred feet wide or such a matter or more.

Q How deep? A. It depends upon the rise in the river, the water at a depth of twenty-five feet probably the river would be 250 to 300 feet wide

Q. Would not that water necessarily wash everything that Chris. Lawson puts in there? A. Yes sir I think it would

Q. And take it down below the bridge? A. Yes sir I think it would land below the bridge

Q. Now this Marne Bar, that

2597

was worked with sluices was it? A. Yes sir

Q. And work on it commenced in 1856? A. Yes sir

Q. And ended when?

A. I think the mines are about exhausted there at the present time. I think a year ago or such a matter there were one or two mines running there

Q. Well has there been any mining there of any consequence?

A. It is exhausted now and washed out. There has been a great deal of mining there since 1860

Q. But it is all sluice mining?

A. It is all sluice mining

Q. How wide are the sluices?

A. Well about 18 or 20 inches wide

Q. How deep? A. Well 14 or 16 inches.

Q. They are made of what kind of lumber? A. Made of pine, inch lumber or an inch and a quarter on the bottom, or

4598 an inch and a half or such a

a matter.

Q. On what grade are they set? A. I do not know I think the grade now is about 4 inches to 12 feet

Q. Now do you make the same statement in regard to Mississippi Bar? A. Yes sir

Q. Is not that earth there red? A. Mississippi Bar?

Q. Yes sir. A. Yes sir at the upper end of the bar there is a point there that is red but the lower end is not

Q. That makes what is called red slickens does it not?

A. Yes sir, there is a point right at the upper end of Mississippi Bar that is red earth but the bulk of the bar, the bar itself is grey cobble and of a sandy nature

Q That is a cobble and sand bar is it? A Yes sir, similar to Maine Bar, the same formation they are lower bars than those bars higher up the river

Ex 99

Q. That was mined by sluices.

was it not? A. Yes sir; there has been a great deal of mining there by sluices and a great many Chinamen rocking there also, drifting and rocking.

Q. Drifting and rocking, then there has been a very small displacement of the earth

A. Yes sir, there has been, I guess, laying there and waiting for water, three or four or five companies of Portuguese that sluice altogether

Q. A very small displacement of earth?

A. No sir, there has been a great quantity of earth displaced there at Mississippi Bar from the time they first commenced mining there up to the ~~present~~ time

Q. Well, the cobbles still remain on the bar?

A. Yes sir, they throw the cobbles out of the boxes.

Q. They did not go into the stream? A. Well, the heavy

2600 cobbles do not run through

Q. And the same is true at Texas Hill is it not — the same is true at Negro Hill, the cobbles are all kept out on the banks?

A. Yes.

Q. And they are there and speak for themselves

Mr Catlin Do you say all the cobbles? A. No sir, all the larger ones that wont pass through

Mr. Cadwalader You say the principal part of the mining on Negro Hill was done in 1853-4

Objected to as leading

Q. In regard to the structure of the earth in which you found gold in the bed of the river

Objected to as leading

Q. What was the structure of the earth in the bed of the river in which you found gold

Objected to as not re-examination and question withdrawn

———— " ————

7B-07

Testimony of Chris L. Ecklon

Called for Plantiff Sworn

Mr Hart Where do you live? A. I live by the suspension Bridge in Mississippi Township opposite Folsom, on the american River

Q. Mississippi Township?

A Yes sir

Q. How long have you lived in that place?

A. On the first of April next will be eleven years on that spot - on the first of April coming I will be there eleven years.

Q. You came there in 1870 then? A Yes sir 1870

Q When did you first come to this state?

A. In 1856

Q. Where did you settle when you came here?

A Right there where I am living now. When I came it was on the second day of August, when I came up here in 1856, and crossed over, but there was no bridge there, where the suspension bridge is now

Q. In Folsom?

A. Yes sir, by the American River, and then I went down to work in the river, in the bed of the river, about 600 yards below the bridge or 800 yards - from 600 to 800 yards below the bridge. I started in working in the bed of the river there. That was about the 4th or the 12th of August, 1856

Q. How long did you remain there at that time?

A. I worked in the bed of the river till December or almost to the middle of December, and then it started in to rain pretty heavy, and drove us out. That was in 1856 - a little before Christmas

2603

Q. Where did you live before 1856 and the time of your settlement at your present residence? A. I have been living in the town of Folsom principally

Q. From 1856 up?

A. All the time, but not until now.

Mr Catlin You said you lived in Mississippi Township?

A. Now?

Mr Hart You have been living there eleven years, and from 1856 to 1870? A. Yes sir I have been living in the town of Folsom ever since engaged in business there

Q. In the town of Folsom from 1856 to 1870? and from 1870 up you have lived in Mississippi Township?

A. Yes sir

Q. How far up the river near Folsom, are you acquainted with its channel?

A. Right up to the forks where the north and south forks pass, right there where they come together, and form the American River. From then I call it the forks right up to the end of the river. What I call the end of the river is the fork, and after the forks I call one portion the ~~north~~ south fork and the other the north fork

Q. You are acquainted with the river from Folsom up to the South fork?

A. Yes sir

Q Are you acquainted with it any further up than that? A. I have been over it a great many times, and I know the locality of the country but not so well. I do not know as I have been there, for two or three years, my business not calling me up there many times

Q. How far up the river have you been above the south fork?

A Oh I have been on the headwaters of the south fork ninety miles up the Sierra Nevadas, and also to the headwaters of the north fork, what they call the Rubicon on the north fork, but there is a portion that I am not well posted on

Q. Have you ever been up and down the river, along the bed of the river further up than the south fork? A. No, no higher

Q. When did you become acquainted with the river as far up as the south fork? A Well as far as the south fork. I have been acquainted with it since 1856 when I was engaged in mining. I worked in the river in those days and we went up higher on the river, as high as the south fork to take up logs

Q. What kind of country

does that river run through between the south fork and the town of Folsom?

A It runs through a very steep, slate rock channel. The biggest portion of it is slate— slate rock channel, a very deep channel

Q. What was the nature of the banks? A They were very steep

Q. And how high?

A. Well they stand from 60 to 100 feet, all the way, that is up to the brow of a hill

Q How far do you go above Folsom before you get into the mountains?

A. Well some call the foothills here, the mountains. I do not consider it mountains until I get up near Placerville or above Placerville

Q. Well I mean upon the north fork of the American River? A. Well that I could not say

2607

Q Do the hills grow larger or smaller as you go up towards the north fork?

A. They increase in height and steepness according as they advance

Q. What do you call the bed of the river there or the place through which the river runs between the south fork and Folsom?

A. The bed of the river

Q. Well is it in a ravine or on a table land?

A. It is a bed of the river I suppose, and has been there from time immemorial and has worked a channel through a continuation of the rock?

Q. Does it run through a ravine? A. No sir I do not think it is a ravine.

Q. You think it is a deep cut in the mountains?

A. Yes sir, that is it nature has formed it from the continual travel

Q. About how much does the river fall between the south fork and Folsom?

A. I am no engineer, but it comes pretty rapidly from the south fork to the bridge. It goes down very rapidly. I have no idea how much, there is a good deal of fall there though

Q. Are there any places where the fall is greater than any other, the general fall of the river?

A. Yes sir, there are several places. There is one place where in low water there is a fall of 15 feet in one spot, and there are several other pretty good falls

Q. How does the water run over those falls, through the channel, in a waterfall?

A. Yes sir, when the water is low it breaks off like any other waterfall

Q. How far is it from Folsom to the south fork

Ebag

of the American River?

A. Well, to the best of my knowledge it is a little better than two miles — probably two miles and a quarter or two miles and a half it might be from there up to the waterfall.

Q. Have you been engaged in any business which made it necessary for you to take observations as to the rise and fall of the river, and the condition of the water?

A. Yes sir, I have been an observer for a period of three years for the Signal Service, and taking an observation every day that is the height of the water for five or six months in the year. In the summer season I have not taken any observation of the water

Q. How did you find the channel of the river at

Folsom in 1856?

A. In 1856, when I came to the country, to mine down there, we made what we call a wing dam, that is we took in one-half of the river by a dam of logs, and fastening the logs down with rocks, and we turned in the ~~six~~ one-half of the water and then we pumped out that hole in the wing dam dry and then we stripped off a little of what we call tailings, which consisted of 2 or 3 feet of sand and substance which had got there, which had been washed down there. We stripped that off, and we got into a blue streak of gravel and a little coarser sand that had apparently been there for ages.

It was a different formation. The rocks appeared to be black, and the sand appears to be of a different formation, ~~at the present time~~ what we call pay dirt by washing it

Q. Did it correspond at all with the color of the sand that has come there since?

A. No, it was a different formation

Q. Was it different in color or different in kind, how?

A It was different in it's weight, in its color, and in its nature. It was not mixed with any kind of clay. It was a substance which ~~was~~ had laid for generations in the water, and had washed all the clay stuff or what dirt was in it, and by panning it out you would not get any muddy water you might say - you might get a little muddy but very little. It was a substance which had been lying there probably like I said for hundreds of years, and the clay was washed out of it

Q. How deep down did

you say that was?

A. Well that was undoubtedly ten feet below the raise of the water at that time, ~~blow~~ below low water mark

Q. How deep was that below the bottom of the channel as it was then?

A. The gravel was confined on the ~~to~~ top of the channel, the main bed of the river

Q. But didn't you dig down some distance before you found it?

A. After the water is pumped out of the hole we stripped 2 or 3 feet of sand and what you call tailings and then we got on to that pay part. There were some places 3 feet and some places 4 feet

Q. What was that, sand you stripped off?

A. We called it tailings. It had undoubtedly come there a few years before, because it was a loose substance and had only been used there a few years before.

Q. Was it of a lighter color?

A. It was a lighter color

Q. How was the water in the channel there at that time at Folsom?

A. In regard of its color?

Q. Yes sir.

A. It was simply like it is now. I do not think ~~I~~ it was quite as colored as it is now. I think it was if anything a little clearer

Q. Do you know if hydraulic mining was going on up the stream at that time?

A. No sir, at that time there was no hydraulic mining

Q. What kind of mining was going on up the stream?

A. Well, when I was mining those days in a good many places there was rock and other places we used small sluices. There was a good deal of surface going on and about that time the miners started in to what we call ground sluicing by caving out underneath the bench and washing up underneath the sluices, and depositing it in the river. That was about our mining system at that time.

Q What was the depth of the river at that place then as compared with the present time?

A. Well, the river has filled up enormously there

Q. At what place?

A. At that place where I worked first in 1856

Q. Has it filled up at other places along there?

A. Yes sir in other places

Q. How far down the river has it filled up from that place? A. As far as I have been on the river

Q. How far down is that?

A To Sailor Bar below

Q Where is that?

A. That is about 3 miles from the bridge maybe 4

Q. How deep do you think

the sand has filled up there since that time?

A. The sand and gravel has filled up 20 feet where I mined in 1856

Mr Cattin Where you mined?

A. Yes sir

Mr Hart Twenty feet higher than it originally was?

A. Yes sir

Q. Was the river a narrow or broad stream at Folsom?

A. The river was a little narrow — no it was not much narrower than it is now. It has changed its course

Q. How wide is it now?

A. That depends altogether on different localities

Q. Well, I mean at Folsom or at the place where you did this work?

A. The river dont run any more just right on the work. It has gone over towards a place that is called Negro Bar. There is no more river where I mined. The river has been pushed off on the other side

Q. Did the river ever run between bluff banks of the town of Folsom, high banks?

A. No sir there was only banks on the west side. The bar was up on the other side Negro Bar was on the other side.

Q. How wide was the river at that place?

A. In 1856?

Q. Yes sir: A. Well, something like now from 60 to 70 feet

Q. Now how wide is the filling up? How wide is the place that is filled up in the river along there you say at Folsom and 3 miles south?

A. I did not say 3 miles south.

Q. Well 3 miles down the river?

A. Down the river; that makes it west — well where I mined and then down to Sailor Bar or Mississippi Bar is filled up enormously but how much I cannot tell in places that have not come so near to my observation

Q. What is about the average width of the filling up?

A. Well I should judge from 12 to 15 feet.

Q. Deep you mean? I mean wide?

A. The river?

Q. No, the filling?

A. It filled up the river that way from 10 to 15 feet

Q. The full width of the river?

A. Yes sir

Q. Does the river run 15 feet higher than I did then?

A. Yes sir

Q. Now east of Folsom going up the river, what was the nature of its bed there up to the south fork of the American?

A. It has not changed its nature materially

Q. What was its nature at that time? A. Its nature was as you find it to-day, just about the same

Q. Well what is it? A. I do not know. There is a good lively stream running down in its original channel

Q. In its original channel? A. Yes sir

Q. What does it run over? A. It runs over the formation of granite rocks, and after a while it gets into a slate formation, and runs in the channel where it ran when I first came there

Q. Are there any considerable fills of sand or places where sand has filled it up between Folsom and the south fork? A I noticed one place or two places that are filled a little this year, but last year it was not at the same place. Last year there were bars at other places

Q. There was a bar at another place 2619

A. At other places. This year I noticed two, one above the Prison on the north side, and I noticed another little bar has formed at the Prison up on the south side of the river

Q. Were there any bars there last year? A Not on those places

Q. Where were the bars the year before?

A. Well, ~~no~~ I know there was a bar there some place but I cannot recollect

Q. Was it farther up or farther down?

A. It was farther up

Q. Do you know about how much farther up?

A. Well it was a little above where the Natoma Company have put in a dam, There was a bar about there.

2620

Q. Does that water in that stream from the South Fork to Folsom run with as great or greater or less velocity than it does after you pass Folsom? A. After it leaves Folsom there is where I am not so well posted as to its velocity and swiftness, but it has a great deal more fall as I stated before from the South Fork where the Forks come together, that is where those big falls take on and the water goes very rapidly. After it passes the bridge it is dissolved and when it comes by Negro Bar it does not travel near so fast.

Q. Have you noticed any difference in the swiftness of the current at Folsom during the last 15 or 20 years?

A. I have

Q. What is the difference

A. Since early days by observing logs and stuff going down the river; before the river was filled up below the bridge it went off a great deal quicker and the logs travelled a great deal quicker than since later years

Q. A great deal quicker than later years? A. Yes sir; it has this last year

Q. When did you first notice any difference in that respect?

A. Well, within the last year I have noticed it since I have got to be observing the river a little closer

Q. About how fast does that water run down from the South fork to Folsom?

A. Well I do not know. I think that the more water there is in the River the faster the river will travel. I think it will travel at the rate of 10 miles an hour.

Q. Down from the South Fork to Folsom?

A. Down to the bridge.

Mr Cutter Do you mean at high water?

A. At High water

Mr Hart Did you ever notice it bringing debris down the stream?

A. I have yes.

Q. Where from?

A. That I do not know.

Q. How far did you notice it bringing it down — how far up?

A. I have only noticed that it brings down slickens or tailings and one thing an a another.

Q. You have noticed that?

A. Yes I have where I live I have never noticed anything above.

Q. What is the character of the water there that comes down?

A. The character of the water in what regard sir?

Q. In regard to being muddy

A. It is pretty muddy this time of the year but it is not so bad as it used to be. It will be more muddy undoubtedly after a while.

Q. When does it carry the greatest quantity of mud and debris, in the winter time or in the summer time?

A. In the winter time. I have observed that the first freshet brings down the mud or slickens.

Q. The first freshet brings down the greater part?

A. The greater part.

Q. What is the color of the mud that goes down?

A The first freshet brings it down very dark and very heavy and very bad.

Q. Look at that and see if that corresponds with the color of the mud that it brings down?

A. The first freshet brings down a great deal of thick stuff and it is a shade darker than that.

Q. It is darker than that?

A. Yes. This is something like the slickens that is running in the river now (The material referred to was labeled no 6 Slumgullion or slickens)

Q. Now you say that the first freshet brings down a greater quantity. About what quantity does it bring down in proportion to the amount of the water?

A. I have observed that when the first freshet comes the river is more noisy than usual. I live on the bank of the river and the river then appears to shake the rocks to their foundation. I have partly laid it to the fact that it carries down the slickens that has been hanging on the river bank for 6 or 8 months and it become very thick. We use the river water but by that time it is not fit for use.

Q. Can you drink it?

A. No Sir not in that state

Q. How thick is the water made by one of these freshets?

A. It is horrid

Q. Does it become very thick

A. Yes.

Q. Did you ever in your observations there undertake to experiment to see how much mud there would be in a bucket or a glass of water? A Yes. In a bucket I could get at it.

Q. How much mud did you find?

A. If you would take some of the first rolling water that comes along in the fall you would undoubtedly get in a bucket of water three inches of this sediment — of a darker shade?

Q. You would get at least three inches in a bucket of water? A. Yes. It is not fit to use for anything.

Q. Where does all that slickens and stuff go?

A. It goes with the water.

Q. That is the stuff at Folsom does it go on down the river

A. It goes on down the river.

Q. Did you notice any sand coming down?

A. Yes there is sand coming down.

Q. What time in the year have you noticed sand coming and at what time in a freshet or a flood.

A. I think it is gradually coming along but I think the first freshet produces the most of it and I think undoubtedly more comes then but I cannot tell until the water runs down.

Q. How is the water in the summer time, When it comes down. Is it clear or is it to some extent charged with ~~this~~ stuff?

A. This summer it has been undoubtedly better than it was last year.

A. I mean ordinarily in the summer time?

A. We are using it and we observe it closely.

Q. I mean ordinarily in the summer time?

A. It is fit to use. We settle it and it is fit to use.

Q. Does it come down charged with this stuff in the summer?

A. No Sir it does not.

A. Does it come down perfectly clear?

2628

A. It is milky water and

it is fit to use but it is roilly water. I have taken many a drink of it in the state it is in as it passes by. It is something of the same color as the Sacramento River water. It does not differ much from it.

Q. How far up the river have you observed this stuff coming down and the water in the condition which you have described?

A. It is undoubtedly of the same color right at the forks~~?~~.

Q. It is of the same color as far up as the forks?

A. Yes

Q. Is there any difference between the color of the water that comes in through the two forks?

A. There is much difference at some times but not at other times. Sometimes you can stand in between the forks and see the

2629

differences in the shade.

Q. What is the difference in the shade?

A. The South Fork bring down a kind of yellowish shade something like this stuff you showed me and the North fork generally brings a kind of a bluish shade at certain time.

Q. Did you ever see that stuff that comes from those two forks dried afterwards

A. I have seen it dried often

Q. What is the difference in its color when it is dried from that when it is wet?

A. Well that I do not know, I do not know if I could remember distinctly the difference. I have not seen any of it dried except along by the bridge and I think that is stuff similar to this. You can break it to pieces.

Q. Have you particularly observed the North fork of the American River to see what this stuff is that colors the water — to see whether it is mud slickens or sand?

A. Well —

Q. (Intg) I mean the North fork right where they come together?

A. Where the north forks comes in it causes a different shade at different times of the year and sometimes you can hardly distinguish it. Sometimes you can hardly distinguish which is which and sometimes like in the bay you can stand by the American River and see about 300 or 400 hundred feet down where the water comes together. You can sometimes distinguish it that way.

Q. And at other times you could not hardly distinguish it?

A. At other times you could not hardly distinguish the color.

2631 Q. After the water subsides at Folsom what do you find there in the nature of the deposit say after the first flood goes away?

A. Well it leaves a bed of gravel and places of sand.

Q. Do you ever find any slickens there on the edges?

A. Yes. But they do not settle in there at the time of freshets. A freshet does not settle any slickens.

Q. Where do the slickens go to? A. They go down

Q. After the freshet?

A. Yes.

Q. How do they settle there then A. In my observation slickens are the lighter part of the loam that is contained in the water which clears off and settles on the sides.

Q. It settles on the sides

A. Yes

Q. How deep did you ever see it settle on the sides during any one season?

A. I have seen it so that it

was difficult for a dog to get to the river to get a drink?

Q. So that it was difficult for a dog to go to the river to get a drink? A. Yes

Q. How deep would that be?

A. from Two inches up to 2 - or 3 feet.

A. What kind of stuff would that be?

A. It would be similar to this that you have produced in this can.

(Referring to the material labeled No 6 Slumgullion" Slickens deposits)

Q. As thick as that?

A. Its thickness depends on how it is situated as to draining off. If you drain it off it becomes dry and if you have no drainage the water mixes with it and it becomes softer.

A. When it is soft in that way can you stir it. Did you ever try to stir it?

a. Yes a man may — I do not believe he could. What do mean by stirring it?

a. Take a stick and stir it.

Did you ever try to do that?

a. Yes you can do that.

Q. Did you ever do that?

a. No sir I do not know that I ever did sir.

Q. Did you ever get into it in any way?

a. Yes I have.

Q. How deep?

a. I have fallen in it a couple of times and have got in above the knee and I have seen other folks fall into it when it nearly cost them their lives.

Q. Where was that?

a. Right underneath the bridge.

Q. After the water comes after it is there what becomes of it?

a. That was what I was trying to illustrate before. That is the time it goes off.

Q. When the freshet comes it carries it off with it?

A. Yes that is the time the thickest comes and that is the time it goes down.

Q. Did you ever see any of it coming down?

A. I have seen the water so thick, with as I said before; and that was the time it went down.

Q. How far have you seen the water coming down so thick? A. That was right at the bridge. I have never gone down further and followed it.

Q. How broad is the channel of the American River as you go up the river from Folsom to the South fork?

A. At low water mark it is not very broad. At the present time there are places where it is on thirty feet.

Q. How broad is the canyon through which the stream runs?

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A. Well it is from thirty to one hundred feet according as it is confined in the channel and to the rocks in the basin. Where it is flat on the side the water spreads out.

Q. About how broad is it

A. From 30 to 100 feet from the South fork right down to the bridge.

Q. Is there any place in the bed of the stream there or in that cañon where this debris and sand with which the water is charged can be discharged or deposited without leaving it in the bed of the stream itself?

A. I do not believe there is any debris—

Q. (Judg) Is there any place where it could be discharged except to go down the stream or to go off on the sides?

A. No sir I think not.

Q. No place?

A. No Sir.

Q. When did you first observe the filling up of the river at Folsom?

A. Ever since I have ~~been~~ mined there.

Q. It was filled up at that time?

A. It was filled up undoubtedly at that time.

Q. You have not noticed it filling up there?

A. It has been filling up gadually since 1856

Q. Gradually

A. Yes

Q. Can you notice traces of it each year?

A. In some places you can, and in some places it has changed its coarse. It will move according as it fills up.

Q. How much did it fill up during the winter of 1880-81, Last winter?

A. I could not say.

Q. Now state whether or not you have ever seen the river scour out to any extent? ~~A~~

A. Well as I stated before it changes. The water changes its course as the water seeks the lowest place. And in doing so it will sometimes take a kind of cutoff and it will go down in the ground pretty well.

Q. Does it ever grow deeper there? A. It may in some places but it is not so deep as it used to be.

Q. I want to know now whether the first freshet carries off the deposits and the others move them on?

A. That is not the theory of it. The first freshet brings the most oily and dirty water and in my estimation carries off the slickens or slumgullion and I know from observation that undoubtedly the common gravel and sand comes along until the river runs down and it gets so that the river has no more force to carry the tailings and then it deposits the slickens on the sides of the river and it lies there then from the month of September until the next freshet comes when it takes it down again. That is the way that I have made up my mind that it is.

Q. Did you ever see the water in this river carry the sand and deposit it away from the bank?

A. Yes it is a common affair.

Q. What is a common affair?

A. For the river when it rises to take the tailings down. There are lots of tailings that are deposited on the sides and on the banks that are not reached and when the river comes up the higher it gets up the mon tailings is swepts down

Q. What do you mean by tailings?

A. I mean the earth or that portion of the gravel and sand that they have abstracted the gold from and have run it through their sluices towards the river.

Q. It is thrown into the river? A. Yes it is thrown into the river and that is what we call tailings.

Q. What is the character of the gravel that you find there or tailings?

A. Where?

Q. Do you find any gravel there A. Where?

Q. In the bed of the river?

A. Yes.

Q. What kind?

A. When I was mining—

Q. (Intg) Answer the questions now?

A. It is like the soil.

It is like the substance in some of our banks. There is gravel and sand, and then it consists of different stages of sand coarse sand and fine sand and small rocks and large rocks.

Q. Did you ever find any quartz there?

A. There is no quartz there, no sir. Occasionly there is a quartz bolder but there is no quartz in the river. Sometimes there might be a quartz boulder formation but it is similar to a cobble stone.

Cross Examination of C. L. Ecklon

Mr Catlin are there not streaks of quartz in the bank there?

A. There are quartz boulders there.

Q. Are there not some

streaks of quartz rock something like ledge in that neighborhood?

A. There are

Q. In the natural banks of the river there?

A. Yes at one place a quartz vein occurs.

Q. Has not the river carried some of that quartz into the river in former times and made those quartz boulders?

A. I do not understand you.

Q. Has not the river in former days washed some of those quartz ledges in that neighborhood so that it has lodged quartz boulders in the river?

A. In the river?

Q. Yes.

A. I never have observed that in my experience.

Q. How is that?

A. No. I have never observed in regard to quartz boulders but I have seen small quartz rock broken off about the size of my fist in the tailings on the banks. a part of the banks had been washed and part of the gravel is composed of quartz.

Q. Do you not find quartz gravel as big as your fist in Chris Larsens claim?

A. Yes there is some in some of those claims!

Q. And it is washed into the river through some of the sluices?

A. Yes

Q. What has been your occupation since 1856?

A. I have been a butcher

A. Have you done any mining since 1856?

A. No Sir.

Q. How long did you mine in 1856?

A. I mined two years.

Q. During what years?

A. In 1856 first I mined

on the river when I came to the country in August ~~and~~ in the fall of the year. After we were washed out about Christmas, on the first of January I started a mining claim on Maine Flat right opposite where we had been on the river, on the north side opposite nigger bar. I mined there for a period of time and that is about all the mining I have done.

Q. Then all the mining you have done is when you went into the bed of the river and mined there until late in the summer or fall of 1856

A. Yes

Q. And in the following year you done some mining on Maine Bar? A. Yes for a couple of years?

Q. Did you mine two years on Maine bar?

A. No Sir one year on Maine bar and then I mined

I opposite on Nigger bar opposite Folsom.

Q. At which place did you work first?

A. I worked with Mr in 1856 in the bed of the river?

Q. You worked in the bed of the river in 1856?

A. Yes.

Q. And on marine Bar in 1857?

A. Yes.

Q. Did you work at mining after that? A. Yes.

Q. Where A. I worked on the other side on the Folsom side the south side.

A. How long did you work there? A Pretty near one year.

Q. All winter and all summer?

A. Just about pretty near one year altogether.

A. That was the last?

A. Yes

Q. Since then you have been engaged in the business of butchering? A. Yes

Q. That is your business still? A. Yes.

Mr Hart Have you ever kept a bridge up there?

A. Yes

Mr Catlin This bridge that crosses the American River you purchased at a certain time did you not?

A. Yes.

Q. About what time?

A. I purchased it as I said before — I do not know that I can figure it but on the first of April coming I will have been there 11 years.

Q. About 11 years ago you bought the bridge?

A. Yes

Q. You attended the bridge and carried on the butchering business also.

A. Yes.

Q. What has called your attention to the bed of the American river from Folsom up to the South fork since you have not been engaged in mining?

A What has called my attention to it since then?

Q. What ~~opportunity~~ occasion had you to examine the bed of the American River?

A. In 1856 in the fall they were sending logs down by the river.

Q. What? A They were shipping logs. There was a logging business established on the South fork and they cut logs and sent them down the river and they were short of hand and I hired out to them and I helped to get these logs down.

A. That was in 1856

A. Yes.

Q. I am asking you the question after you quit mining and went into the butchering business what occasion have you had to examine the bed of the American river between Folsom and the forks, since 1857, since you quit mining?

A. I had no other business than going up there since then and traveling up and down and as an observer.

Q. Where did you travel up and down on the immediate bank of the river or on the roads?

A. No Sir. I have delivered meat to the prison and I go up every day almost.

Q. Since the prison has been built you go up to the prison? A. Yes.

Q. Which road do you take to go to the prison?

A. Sometimes I go one way and sometimes another. Sometimes I go up the rail road

Q. Can you see the river at all when you go by the road? A. No Sir. But I can see it very finely from where I live.

2648 Q. ~~Last~~ Immediately at the

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bridge you can see it?

A. Yes

Q. What do you know about the American River from the~~re~~ prison up to the forks?

A. I have only been to it four times since the fifteenth of September?

Q. From the 15th of last September

A. Yes. This year. Not last year but this year.

Q. You have been there four times? A. Yes.

Q. From the prison up to the forks A. Yes.

Q. What business had you there?

A. I was shooting birds.

Q. You were there hunting?

A. Yes I was there sometimes sporting.

Q. Were you down right near the water or were you up on top of the hills?

A. We have to go down to the river sometimes. There is no water there and 2 dogs would get dry and we would go down there to water the dogs once in a while.

Q. Did you notice the Natoma dam there?

A. That new dam? Yes I noticed it. You cannot see it. It is a kind of a riffle on the water.

Q. When was that dam built

A. I do not remember. Five or six years ago.

Q. Was it not built in 1866.

A. I do not know. I know it was built.

Q. You were living in Folsom in 1866? A. Yes.

Q. Can you not tell within 2 or 3 years when that dam was built?

A. I expect it is within 6 or 7 years

Q. Was it not built 16 years ago? A I do not know.

Q. Was it not built 15 years ago? A. Are you alluding to the Natoma dam? Q. Yes.

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A. At Salmon Falls

Q. No Sir.

A. Half a mile above the prison?

Q. Yes. Do you think that was built 5 or 6 years ago. State when that was built?

A. I do not know any thing about it?

Q. Can you not give us some idea?

A. I have told you that it is my recollection that it was five or six years ago.

Q. Has the river filled up any there. Is not that dam to be seen just as it was when it was first built?

A. Yes. but I see the river much filled up.

Q. I am asking you

A. (Intg) The river formed two bars there this year.

Q. Is the water any higher there now than it was in 1856? A. No Sir. I do not say so and I did not say so either.

Q. Did I understand you to say that when you came there you found a foot bridge across the American River?

A. No Sir. There was a bridge there. I traveled across it on foot.

Q. You traveled across the bridge on foot?

A. It was on piers and it went down in the fall of 1852.

Q. You did not say that there was a little foot bridge there? A. No Sir. It was a bridge that stood up on piers.

Q. I suppose a foot bridge might stand on piers?

A. I travelled on foot across it. Jeff Thompson was there at that time.

Q. And that bridge you say in 1856 stood on the same site that the present bridge does? A. Not exactly but very close.

Q. How close

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A. Well about forty feet. The other one stood forty feet higher up more east.

Q. Now is there any difference in the surface of the water as it passes under the bridge say at low water mark in the summer now from what it was in 1856 and if so how much?

A. I said before that I did not think the river has changed any. There is no more water now than there was then and no less

Q. The water is about the same level there now?

A. Yes Just about the same,

Q. Where is this place where this average is of about 20 feet?

A. It is opposite Negro bar and Marine Flat.

Q. How far below the bridge?

A It is a quarter of a mile below the bridge.

Q. That is where these

piles of tailings were run out into the river?

A. Yes.

Q. From Maine flat?

A. Yes below that ravine that comes in from Big Gulch.

Q. There are a great many piles of tailings running out into the river from Maine Bar? A. Yes.

Q. What effect do the freshets have on those tailings?

A. They sweep them away. They sweep them off.

Q. You mean that they level them down? A. Yes

Q. How far does it sweep them down?

A. That I could not tell.

Q. About how far as far as you could observe?

A. That would depend altogether on the current of the water according to my observation.

Q. Take an ordinary winters flood how far does it carry those tailings down. You say that it would sweep them down, level them down?

A. Yes

Q. At the place you have just mentioned, Mamie Bar?

A. From mamie bar I do not think they will go as far as they do up higher

Q What place up ~~there~~ higher do you speak of? A. Up on the South fork

Q. Of the American river?

A. Of the American, I think they travell better the farther they go

Q. What bars are there from the bridge to the south fork? A No bars

Q What mining is there above there? A. No mining

Q: Is not Chris Lawsons Claim above there? A. Yes. A little above there.

Q Other than that what mining is there?

A There is not another one Slueing at the present time.

Q Was there not mining there in former days on Sailor bar hill? A. Yes

Q. Do you Know where Alabama bar is?

A I do not

Q. Do you not Know a mining place Called Alabama bar

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between the bridge and the south fork?

A. I thought there was a place Called Beans bar, but I do not know where the places are now. I do not remember Alobama bar

Q. Where does this stuff you Call slickens lodge in that River? where is it that you see this slickens?

A. As far as I have been up and down on the River — everywhere — all over the river

Q Where does it lodge on the river? where does the Most of it permanenttly lodge at? A. It lodges at the Sides.

Q How wide? A That depends altogether how the current regulates it. If you happen to be at a place where the current is swift there is no chance for it to lodge. But if you are at a place where the water is Comparatively still you will find it accumulates

Q. How much fall is there between the south forks and the bridge?

A. I cannot tell.

Q. Is there seventy five feet?

A. I cannot tell, There are several nice falls, one or two big falls on it, but as to the measurement I could not tell

Q. Is there not one hundred feet fall? A. I cannot tell

Q. You cannot tell any thing about it? A. No. I am not an engineer.

Q Where was it you made the wing dam in 56?

A. That was right opposite Negro bar.

Q. On which side of the river was your wing dam

A. It was on the north side of the river.

Q. How far below the bridge

A. About half a mile, no? not half a mile! Six hundred yards

Q How much of a space there did you uncover that you were working

A The space was probably 100 feet long, no more,

Q You say at times the North fork was bluish and the South fork was yellowish. What times of years and what years was that,?

A. That was this year

Q. This year the north fork you say was blue?

A. Bluish; a kind of bluish shade.

Q. Bluish instead of red?

A. Yes

Q. Bluish instead of yellow?

A. Yes

Q. How did you notice that

A. By going down right where they came together

Q. Right at the junction?

A At the junction

Q What time of year was that? A That was a little before the first day of october; September some time.

Q. Was that when you went

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up there hunting?

A. Yes

Q. You did not go up there with the view of examining?

A. No

Q only to hunt?

A. I just went up there to hunt and got dry and went down to the river, There was No water in the north fork ditch and we went down to the river to get some water for our dogs and ourselves.

Q You were on the north side of the river?

A. Yes

Re direct Examination
Of
C. L. Ecklin

Mr Hart. You say the stream was bluish. Can you mention anything that would produce the same Color by mixing with water? What Kind of dirt would produce the Color that you call bluish?

A Perhaps blue clay might do it; I do not know; I never tried it,

Q. When you say bluish do you mean gray blue or yellow? A. A kind of bluish shade

Q How did the color compare with that (No 5)?

A. I do not believe that shade would do. It was a little darker blue.

Q. How did it compare with this (No 3)

A. I do not believe that would do either.

Q. You say it would be produced by blue clay?

A I say blue clay might do it

Q. You were asked how you came to go up the stream there. I will ask you whether or not you are in the habit of going up that stream and if so for what purpose?

A I have been on that stream, not last year, but when that gague was located there.

Q. Are you a hunter?

A. Yes, I sport a little

Q. What do you usually go up that stream for?

A. Generally to shoot a few birds.

Q. You spoke Beals bar and Lawsons mine?

A Beans bar and Lawsons mine

Q Are there any other mines along the stream besides those, between the South fork and Folsom? A. No.

Q. I mean that have been mined? A. Oh, there has been a good deal of mining going on there, but not now.

Q. About how extensive has mining been done there?

A. Not so very extensive

Q. About how many mines have there been up and down that stream for three miles?

A. I could hardly answer that question, I do not believe there have been six successful mines there?

Q. About how many have been worked up and down there that have tailed into the river?

A. About twenty.

Q. What has become of the tailings that have thrown into the river?

A. They have gone down

Q. Are there any in the river above Folsom now?

A. I do not believe there are with the exception I have spoke of before.

Q. Could you estimate the number of millions of cubic yards which have been taken out and thrown into that stream between the South fork and Folsom?

A. I could not.

Q. Are there any large pits between the south fork and the bridge, made by hydraulic mining or mining of any kind where they have tailed into the river?

A. Yes. There has been a good deal of dirt taken out there

Q Where has most of the dirt been taken out?

A. On main flat and where Lawson is mining.

Q. How much has been taken out where Lawson is mining?

A. I suppose probably eight or ten lots have been mined out in that place.

Q. What are lots?

A Lots laid out in the town of Folsom.

Q. Eight or ten town lots?

A Eight or ten lots, that was located in lots and the bigger portion it has gone down

Q. Has gone down the stream?

A. Has gone down the stream.

Q. If it remained there would you be able to see it?

A. It could not lie there.

Q. If it had remained there would there be any river there?

A. There would not be any river there.

Recross Examination of C. L. Ecklon

Mr. Catlin. You say that all the tailings that have gone into the American River above the bridge have been swept down on below?

A. Yes.

Q. And that the bed of the river has not filled up at all?

A. No Sir, The bed of the river is not any worse than it was in 1856.

Q. What?

A. The bed of the river is not any worse than it was in 1856

Q. Do you mean to say that there are not a large amount of tailings left in the bottom of the river at various points from the bridge up to the South fork?

A. There are not any there, only a few.

Q. How do you know that?

A If there were any there there would not be any river there. There has been enough sluiced out there to fill the river up.

Q. There have been a large amount of tailings sluiced in there; is not a great deal left in the river

A. That might be. But where would the fall come in if that was the case. We have 15 feet of fall there; if it was even, where would the fall come in? and the fall is there to day.

Q. I am not speaking of that. But how is the general bottom of the river from the bridge up? ~~I beli~~

A. I believe it is in just the shape it was in 1856. I do not believe it has changed a bit. I said before that in some places it might change and leave a little bars one side or the other, but the bed seems to be the same.

Q. Has ~~it~~ not Lawson washed

~~wo~~ out half a dozen blocks instead of lots?

A. I mean blocks. If that was not wa not down there would'not be any river there.

Recess until Wednesday Nov 30th 1881 until 9.30. a. m

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